

# Another Bipartisan Multi-Billion Dollar Medical Boondoggle:

## *How Biomedical Research Takes Congress and Our Money*

By Gary Krasner, August 2004

*“The whole aim of practical politics is to keep the populace alarmed—and hence clamorous to be led to safety—by menacing it with an endless series of hobgoblins, all of them imaginary.” . . . H.L. Mencken*

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On Wednesday, July 21, 2004, President Bush signed legislation to develop and stockpile vaccines and other antidotes to chemical and germ attacks. The President originally asked for the legislation 18 months ago in his State of the Union speech. The “Project BioShield” legislation is a \$5.6 billion-dollar subsidy to the biomedical research industry to motivate them to create treatments and prophylaxis against biowarfare agents from terrorist attacks.

According to the Associated Press, *“U.S. officials are hoping that Project BioShield will yield enough new-generation anthrax vaccine to dose 25 million people” [...] and hope it “will provide antidotes for botulism and anthrax, a safer smallpox vaccine and a long-awaited children’s version of an anti-radiation pill.”*

On the previous Wednesday, July 14th, 2004, members of the House Homeland Security Committee were trotted onto the House floor to speak in support of the Bioshield Initiative (S.15). Who trotted them out there? The biomedical research industry. They’re a composite of public health agencies, research institutes, universities, and pharmaceutical firms who each year depend upon government grants to sustain them.

Unfortunately, when it comes to public health and medical issues, legislators (as are journalists) are too fearful to challenge contentions from medical authorities. In bipartisan unity, they check reason and logic at the door and defer all opinions to the medical experts. In this case, the House approved the Bioshield Initiative on a 414-2 vote July 15, and the Senate supported it 99-0 last May.

Sen. Ted Kennedy (D-MA), an author of the bill, said, "... this bill could save millions of lives." Not that he actually knows that. I would wager he doesn't know that biological weapons have proven to be totally ineffectual, as compared to say chemical weapons, which have proven their worth in theater battlefields. Though many would be surprised to learn that neither chem nor bio are considered true "weapons of MASS destruction.

But before I get into that issue, I'll briefly explain why the public is so often beguiled by the "Medical Boys", and also provide some advisories regarding precarious situations into which this legislation may drag this nation.

## **Fear of Disease is the Key**

One must wonder how the Medical Boys are able to elicit this gift that keeps on giving, year after year. Last year it was HR 2122, but that version of Bioshield stalled over funding oversight provisions. The year before that it was HR 5710 (Homeland Security Act of 2002). That one funded drug and vaccine research in response to bioterrorism.

I happen to be a hawk on terrorism and foreign policy, as my other essays would clearly indicate. So my criticism of Big Medicine using bioterrorism to get their hands on billions in public funds has absolutely nothing to do with our general war on terrorism, which I support. I only need to point to renowned conservative Phyllis Schlafly, founder of the Eagle Forum, who for forty years has written passionately against vaccination, water fluoridation and medical hubris in general. Or to Regnery Publishing company's proud support of "HIV=AIDS dissident" Peter Duesberg in their publication of "Inventing The AIDS Virus" (1996).

Fear of terrorism is just the latest vehicle upon which the Medical Boys are milking public funds, but the key to squeezing money from the public has always been to instill another kind of fear. 'Fear of disease' is the primary force driving biomedical research, and it paves the way for every sort of medical mandate. Before 9-11, the Emerging Virus Mania had even been hauled out to justify the spraying of the nerve agent, malathion on the heads of eight million New Yorkers.

The instrument of control of the lower classes used to be their fear of God, or of imprisonment and torture. Today, the comparable primal fears are manifested through fear of death and sickness from disease. The affairs of mortality and longevity have become secularized and are now the dominion of the priests of allopathic medicine. Specifically, control is attained by fostering the public's feelings of dependency on modern medicine's promise to halt disease and prolong life. Disease is now considered an inevitable part of life for this drug-dependent public.

Concentration of wealth from profits from medical products and services is the ultimate goal. But 'control' is the essential means to that end. The fact that all the pesticides, chemicals, devitalized foods, vaccines, and drugs actually creates the diseases in the first place is the 'beauty' of this cycle of deception. So potent is this new "religion" (modern medicine) that even most of its promoters are sincere adherents to its precepts. The fiction that disease is transmissible is a fundamental part of this religion that they impress upon the public. It ensures the careers of the researchers and the profits for the institutions.

Fear of transmissible disease based on the standard (and currently dominant) infectious disease paradigm has afforded to government the rationale to take children away from mothers who reject vaccination, AZT, ritalin, chemotherapy, and a host of other toxic assaults touted as therapeutic (often with the help of vindictive former spouses working with Child Protection Services). It has allowed them to convict and imprison HIV positive in-

dividuals for supposedly spreading AIDS. It has allowed them to forcibly quarantine or medicate TB patients and people infected with other microbes they deem contagious. It has permitted hospitals to employ a triad of diagnostic criteria common to both vaccinal injuries and Shaken Baby Syndrome (i.e.: subdural hematoma, retinal hemorrhage, and diffuse axonal injury), to assist prosecutors in convicting innocent parents, thereby enabling hospitals to defer costly malpractice lawsuits (almost 2000 SBS prosecutions in the U.S. annually—a sudden epidemic, supposedly?). It allowed Dr. David Sencer to persuade President Ford to appropriate hundreds of millions of dollars to prevent a nonexistent epidemic. And it allows biomedicine to torture lab animals in the name of sacrosanct ‘medical research’, and to compel pet owners to vaccinate their animals for fictitious microbial-caused diseases, like rabies, and Feline Leukemia.

And by equating sex with death, they have even convinced men to use condoms. Now that’s real influence and control, especially when you consider that condoms are actually porous to viruses, and are coated with asbestos-like talc and carcinogenic non-Oxynol 9.

## **The Debacle of Limited Liability Protections**

There’s one thing that vaccine manufacturers have in common with nuclear power plants and “acts of God”: Private insurers will not underwrite them for damages. Insurance companies aren’t stupid. They live or die by the accuracy of their liability tables, and they are the best in the business at assessing risk. And sure enough, drug companies are already showing signs that the Bioshield incentives are insufficient.

In Michael Barbaro’s, “Bioshield Too Little for Drug Industry” (The Washington Post, July 26, 2004) at [www.washingtonpost.com/wp-dyn/articles/A13873-2004Jul25.html](http://www.washingtonpost.com/wp-dyn/articles/A13873-2004Jul25.html), he writes that the program “*has received a largely lukewarm response from the companies it was designed to help*”, partly because “*the possibility of devastating patient lawsuits if a drug fails.*”

He writes that executives “*complain that it does not offer complete liability protection should a drug have adverse effects on patients or fail to protect them against a pathogen, which could lead to lawsuits.*” Frank M. Rapoport, who represents vaccine maker Aventis Pasteur SA, said “*Until the liability question is solved, we’re not going to see big drug companies come to the table—they have too much to lose.*”

Barbaro writes that Congress had rejected industry efforts to include stronger liability protections in the Bioshield bill, along with other provisions they wanted. Yet he reports that Anthony S. Fauci, Director of the National Institute of Allergy and Infectious Diseases, “*expects Congress [will] address the industry’s biggest concerns, such as liability.*”

Thus, the tug of war begins, and it appears that Bioshield will inevitably require greater funding than the intended \$5.6 billion appropriation over 10 years. As the Homeland Security Act of 2002 demonstrated, vaccine manufacturers will demand that the taxpayers extend to them limited liability protections for their products. You’ll recall that in December 2002, Senator Bill Frist (R-TN) tried to insert a provision in the Homeland Security Act for the government to indemnify the manufacturers of small pox vaccine and other vaccines used for national defense, and those who will administer them. Punitive damages were to be banned outright, and the federal government would litigate compensatory damages *on behalf of the manufacturers*, after cases would be channeled through the federal tort system used for childhood vaccines that limits injury compensation to a maximum \$250,000.

## Government Compensation: Past is Prologue

But this tort system that had begun almost 2 decades ago, has led to a horrible debacle whose effects are resonating today:

By the late 1970's, there had been so many successful lawsuits for vaccine injuries from childhood vaccinations that not a single insurance company was willing to underwrite vaccines marketed in the U.S. In 1986, Congress undertook to insure vaccine products by enacting the National Childhood Vaccine Injury Act (NCVIA). It was intended that the government assume liability in tort for non-negligently caused vaccine injuries. However, following the law's passage, the government under-funded the program and made it highly adversarial. Hearings for claims are now complicated, drawn-out, and hostile to petitioners. Funds that have been awarded have been meager, usually falling far below the total costs incurred by families over the long term. Compensation is also awarded too late—long after medical and related expenses bankrupt the family. Despite this, so far over a billion dollars has been awarded for vaccine injuries, with thousands of cases still pending.

A fundamental fault in the system stems from the authorization of HHS to perform the conflicting roles of adjudicating claims, and establishing the criteria for causality. Secretary of HHS Donna Shalala, for example, had artifactually narrowed or eliminated contraindications based on mere budgetary considerations—often in contravention of IOM recommendations—in order to exclude many kinds of injuries eligible for federal compensation, thereby minimizing monetary awards the government must pay to families. (Authority for HHS to do this was upheld by the Federal Court of Appeals.) HHS has also been accused of this manipulation in order to maintain public confidence in the efficacy of immunization programs.

How could they possibly compromise their integrity this way? Just consider that they invested in a career in which they first were indoctrinated with an exaggerated hubris and confidence in the conventional theory of infectious disease and the notion that vaccination is modern medicine's greatest achievement, and then embarked on a career path in which they either promoted or administered vaccinations. Of those that enter the public health services, can we really expect them to impartially interpret and report on vaccine safety and effectiveness, or to extend compensation for delayed reactions in children, and thereby undermine the efficacy of vaccination programs that they operate? How else can HHS deny there are causal relationships between vaccines and dozens of diseases, as well as reject grant applications year after year from accredited researchers and institutions who want to investigate the associations, or the basic science that may unravel the causes, if it's not to sustain the disease paradigm that's become the cornerstone of their profession, and defend it when it's under attack?

The overtly strict rules for establishing causality by HHS are apparent when viewing the stark differences in the adverse effects listed in the HHS Vaccine Injury Table, as opposed to the Physician's desk reference, or the more cautious (and honest) manufacturer's product inserts that protects companies from liability—a condition of NVCIA under Public Health Service Act, Section 2122, Direct Warnings (Else why would they even consider listing adverse effects?)

Rep. Dan Burton (R-IN) and Henry Waxman (D-CA) introduced remedial legislation that would rectify at least some of the system's failings. However, what their bill cannot rectify is the inherent folly in having taxpayers assume the liability costs of a product that poses acknowledged adverse reactions, and is universally administered to children through state health mandates (the so-called "No Shots, No School" laws, where in many states the legal exemption provisions are difficult to qualify). As an analogy, it would be as if the federal government assumed the product liability costs of Ford automobiles, and every state thereafter mandated that only Fords be driven. No doubt the subsequent percentage of Ford's revenue spent on safety testing would be close to 0.00%. Hence, parent and consumer organizations argue that it's naive to assume that vaccine safety can improve under the compensatory mechanism for vaccines in place today.

## Swine Flu: Case in Point

As far as government compensation goes, the swine flu vaccine fiasco might have been a prototype for the NCVIA indemnification program, and may possibly become a forerunner for Project Bioshield. Despite only a handful of suspected cases, vaccinations against swine flu began on October 1, 1976. The vaccine was targeted at the 151 million people age 18 and over, though only 43 million were eventually vaccinated. The program was halted on December 16, 1976, after public health authorities urged there be a moratorium on the campaign, partly because an epidemic seemed increasingly unlikely, and also because there were sporadic reports of Guillain-Barré syndrome (GBS) following vaccination.

Before the vaccination campaign got underway, the insurance companies refused to issue coverage for adverse health effects resulting from vaccination, and the drug companies refused to produce the vaccine without coverage. To break the stalemate, the federal government assumed liability. [The “Swine Flu Act” provided that claims were to be brought under the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b) (1976), 2671-2680 (1994).] Thus, GBS victims applied for compensation to the federal government, instead of suing the vaccine makers.

In addition to 500 cases of GBS that were medically established to be caused by the vaccine, there were 3,905 claims filed alleging other types of vaccine-induced injuries, totaling about \$4 billion in damages. Of these claims, only 1,1607 progressed to lawsuits. Only 267 claims or lawsuits had been administratively allowed or settled out of court.

The indeterminate and variant outcomes of vaccine lawsuits generally reflects the difficulties in establishing scientific culpability. Determining the degree of the causal relationship is difficult because the reporting system was poor (like the one we have today is), and GBS may be triggered by blood poisoning other than vaccination. Also, vaccines cause delayed reactions that are sometimes expressed many weeks following the injection, and well after the 72-hour window currently accepted by the mainstream medical community. Thus, it’s difficult to be precise regarding the actual number of people killed, paralyzed, or neurologically impaired from this one vaccine.

A paper by Langmuir (1979) estimated that by January of 1977, more than 500 cases of GBS had been reported, with 25 deaths. Based on the weekly numbers of vaccinations, a comparison of observed with expected cases showed that the relative risk of acquiring GBS during the six weeks after vaccination was about ten (10) times the endemic expectation. Breman, et al. concluded that immunization clearly led to an increased risk of GBS, but the risk period was only for six weeks post-vaccination, similar to a number of some earlier studies.

On October 6, 2003, the Institute of Medicine’s Immunization Safety Review Committee, (of the National Academy of Sciences) released a report on current flu vaccine safety issues, stating there were inconsistencies in the scientific data and methodological problems with studies published that prevented a more definitive conclusion. Yet the Committee agreed that there was a causal relationship between the 1976 swine flu vaccine and the paralytic disorder Guillain-Barré syndrome in vaccinated adults.

Suffice to say that a great deal of resources are expended in screening potentially valid claims from frivolous ones. That was true with the swine flu vaccine injury claims. But the government was under no legal obligation to pay vaccine injury claims. And until June 1978 it refused to assume any obligation to compensate, beyond the minimum legal requirements to do so. By that I mean that the P.L. 94-380 (the legislation under which the Federal Government assumed the liability of the swine flu vaccine) did not require the government to compensate victims of legitimate vaccine related injuries. Instead, the law permitted the Federal Government to assume that the manufacturers would uphold their “duty to warn” of potential or known adverse reactions from the vaccine. That meant that the government was not liable for proven claims of vaccine injuries, provided the vaccinees were duly forewarned about them. Technically, the government merely assumed the manufacturers’ ‘legal liability’. In

prior vaccine injury cases, courts had never imposed an ‘absolute liability’ on vaccine makers (i.e., liability based on a causal relationship between vaccination and injury).

This is not well understood by the public. And the confusion over the legal theory of strict liability in tort was compounded by the HHS’s decision to exceed what they were legally required to do, and compensate swine flu vaccinees who developed GBS. But today, with the government now providing more funding for vaccine development and the purchase of vaccines, the public had better learn this, because voluntary payments to compensate people may ultimately be at the discretion of the Department of HHS. Current Federal policy on vaccine-related injuries involving government vaccination programs is largely based on the model provided by the Swine Flu Act. HHS is assuming the obligation to warn of side effects from vaccine manufacturers through the vaccine purchase contracts. Its plan has been to devise informed consent statements and procedures for their distribution to the public, which it hopes will meet court tests of ‘adequate prior notification’.

Thus, whether it’s compensation for childhood vaccines for children in school, or it’s for vaccines against biowarfare agents for first responders, the posture of HHS is adversarial: It wants to be in the position to argue in court that by signing an informed consent form, a vaccinee has assumed the risk of injury and is therefore not entitled to compensation. The fact that the government chose to provide compensation for GBS from swine flu vaccination 3 decades ago is not a guarantee it will do so today with other vaccines.

At any rate, following swine flu, the pharmaceutical industry must have envisioned that indemnification by taxpayers is possible. It’s now the basis for vaccination programs for children (in need of massive reform), and it’s looking like it will be the basis for Project Bioshield. It’s ironic that these later programs have inherited the legacy as its progenitor: a compensation system of dubious merit, based upon vaccines produced of dubious need, based upon a science of dubious efficacy (as I will explain soon).

All dubious, nonetheless achieved by the public health community, whose sacrosanct expressions of ‘grave concerns’ are always accepted as given by a public paralyzed by fear.

## **Inherent Problems of Government-Funded Liability Protection**

The aforementioned hypothetical analogy of the government underwriting and then mandating the purchase of the Ford automobile, and the subsequent minuscule investment in the car’s safety one can expect by Ford, is fine as far as it goes. But vaccination as a medical practice is a far more hazardous undertaking than medicine acknowledges. Thus, limiting or deferring corporate liability for this particular product can become more costly—and ultimately produce vaccines that are more deadlier—than the disease itself (at least that’s been the calculation with regards to the hepatitis b vaccine recommended for babies and toddlers at low risk for hepatitis).

Despite FDA estimates that 9 out of 10 reactions go unreported, the federal Vaccine Adverse Event Reporting System (VAERS) receives annually between 12,000 and 14,000 reports of adverse reactions, including hospitalizations, injuries and deaths following vaccination. About 17 percent range from life-threatening illness to death. Over 30 thousand reports of adverse reactions have been associated with the recently mandated (in most states for school children) hepatitis B vaccine alone, with perhaps over 500 deaths. Follow-up surveys indicate many deaths and injuries that parents reported were not recorded by the system at all. All told, each year there may be well over a million new health problems in children that appear soon after vaccination, with no mechanism in place to determine which ones have a causal relationship to the vaccine.

According to the April, 1996 FDA Pink Sheet, members of the Vaccines & Related Biologicals Advisory Committee cited flaws in the VAERS program including “1—passivity of the surveillance system; 2—under reporting; 3—lack of a control population; 4—inability to determine causal relationships; 5—imprecise definition of ‘serious’ events; and 6—lack of a mechanism to detect delayed adverse events”. Further flaws in the program

were also noted by Dr. Robert Chen, MD, Chief of the Centers for Disease Control Office of Vaccine Safety & Development. FDA Pink Sheet dated June, 1996, reports his comment: “Of all the positive things that were done by the Vaccine Compensation Act...one thing that (was) more or less neglected is research. They (legislators) found a mechanism to fund an injury compensation program after the injury has already happened, but there’s really no way at this point to fund research to try to prevent such injuries.” Hence the inherent flaw in underwriting products that someone else profits from.

Because of the problems I’ve described and more, the 4,000 members of the Association of American Physicians and Surgeons (AAPS)—a professional association of physicians founded 1943—voted on November 2000 at their 57th Annual Meeting in St. Louis to pass a resolution calling for an end to all state mandatory childhood vaccinations. The resolution passed without a single “no” vote. ([www.aapsonline.org](http://www.aapsonline.org)).

Barbara Loe Fisher, President of the National Vaccine Information Center recently wrote:

“Now, parents (from many countries) of old and young vaccine injured children are joining with enlightened doctors in a rejection of the unscientific a priori assumption that a child’s mental, physical and emotional regression after vaccination is only coincidentally but not causally related to the vaccines recently given. They are calling for credible basic science research into the biological mechanism of vaccine adverse events to develop pathological profiles which will separate health problems caused by vaccines from those that are not; the development of screening techniques to identify children at genetic or other biological risk of developing vaccine-induced health problems; the institution of informed consent protections in vaccination laws; re-examination of vaccine licensing standards; and an end to one-size-fits-all vaccination policies.”

## **Can the Problems be Overcome ?**

It’s not likely, to be realistic. One problem I described earlier is that the same entity (HHS) is given the conflicting roles of adjudicating claims, and establishing the criteria for causality. It would be akin to allowing prosecutors to establish rules of evidence, and allowing them to adjust those rules whenever they feel they’re not winning enough cases. Assuming we can reduce the monopolistic role of government and government doctors in running the system, there remains additional problems, and false solutions.

In 2002, Senator Frist offered the simplistic argument that taxpayer indemnification of the drug companies will prevent trial lawyers from feeding at the trough with frivolous lawsuits. But the problems that plague the tort law system do not automatically establish government compensation as the solution. Tort reform that involves limits on awards and sanctions against frivolous actions are akin to sentencing guidelines in criminal courts. Juries cannot sentence someone who runs a red light to 10 years in jail, for example. A fundamental precept of law is that the punishment should fit the crime. And there’s no reason why civil lawsuits cannot establish similar reasonable guidelines.

An additional goal of the Bush Administration might severely threaten the ability of parents to obtain sufficient and just compensation for vaccine injuries. Robert Pear writes in the NY Times (July 24, 2004: <http://www.chron.com/cs/CDA/ssistory.mpl/nation/2700070>) that the Administration has been arguing in federal courts that “consumers cannot recover damages for such injuries if the products have been approved by the Food and Drug Administration.” The Justice Department has made some headway with medical devices. Since this is consistent with the President’s position on tort reform, drugs and vaccines are likely to be next.

Robert Pear wrote, “Allowing consumers to sue manufacturers would ‘undermine public health’ and interfere with federal regulation of drugs and devices, by encouraging ‘lay judges and juries to second-guess’ experts at the FDA, the government said in siding with the maker of a heart pump sued by the widow of a Pennsylvania man.”

In my essay, “Deliberation by Consensus”, I describe a doctrine called, “high medical authority”, in which courts have come to accept as a given, the consensus view of mainstream medical opinion. With this new initiative from the Administration that provides product immunity from the FDA, the sole view accepted by the judiciary narrows accepted opinion even further, to be solely determined by a government health agency, whose commissioners routinely shuttle back and forth to positions in the drug industry.

High medical authority (opinion that cannot be questioned) also seems to permeate the general debate over the efficacy of government-funded compensation. Only it’s transparent to all except dissidents to the conventional theory of infectious diseases, like me.

For example, the theories that biological agents are communicable and/or infectious (both true) and that they cause disease in the recipient (not true), are partly the basis for the theory of “herd immunity”—a concept so full of holes that one can even find the evidence that it’s erroneous from mainstream medical journals. Yet with the imprimatur of high medical authority, these theories are not to be challenged in the courts, which is precisely why state mandatory vaccination laws were upheld beginning a century ago.

Thus, an argument in favor of government compensation is that mass vaccination programs not only protect each vaccinated individual from a disease, but also provides “herd immunity”—a concept which states that if a there’s high enough percentage of vaccinated people in a population, then that will create a condition which purportedly confers protection on the minority of unvaccinated in the population. Vaccination proponents therefore argue that it serves the collective good. Parenthetically, they also see the unvaccinated as getting a “free ride”. For these reasons, they feel that compelling people to be vaccinated is justified. Conversely, the unvaccinated feel equally justified to remain so, based on religious or scientific objections to the practice, or based on their calculation of risk vs. benefit of the individual vaccine.

Nevertheless, believers in the efficacy of vaccination—those in power over the “nonbelievers”—would argue that the vaccinees had taken a risk that benefited society as a whole, and therefore should not be burdened with the individual task of suing for compensation. They would say that vaccination (supposedly) benefits society as a whole, and lawsuits represent an unfair cost imposed on manufacturers or the government, and lays the whole burden of the injury on the individual. Some litigants will be successful, while others will not. Thus, a judicial approach to compensation is unfair and inequitable. And given the usual time frames for lawsuits, even successful litigants wait several years before receiving payments.

The counter-arguments have already been touched on. Certainly the highly adversarial system and restrictive criteria that define ‘vaccine injury’ and causality in the current government compensation system belies any claim that it’s intended to ease the burden on the injured. Also, injuries are quantifiably predictable and can arguably be considered among the costs of doing business, and consequently should be shouldered by the manufacturer. Vaccines for children already have some of the costs of compensation built into the price of the vaccine.

And of course many injuries are sustained by children of parents who tried, but could not qualify for legal waivers from compulsory vaccines. With manufacturers grossing billions of dollars in the vaccine market today, what possible reasons could there be for them not to bear most of the costs of compensating the injured?

In support of the legal initiative I mentioned earlier, which I referred to it as, “product immunity via the FDA”, the Administration argues that “the threat of lawsuits can harm the public health” by inducing manufacturers to withdraw products from the market or issue warnings that overemphasize the risks and lead to “underutilization of beneficial treatments.” But this argument doesn’t apply to vaccines and drugs for treatment from exposure to biowarfare agents. States purchase massive amounts of childhood vaccinations, and Project Bioshield will assure

manufacturers that the federal government will purchase their products. And with government-funded compensation, which other industries in the commercial sector can claim to be so favored?

The Administration's legal maneuvers that seeks to bar lawsuits of FDA-approved products may also deny just compensation for vaccine injuries adjudicated outside the federal arbitration system. The greatest injustice is that these parents would have risked losing custody of their children to local Child Protective Services (and often do) had they decided that it was prudent to forego the vaccines that ultimately injured their children. How can parents protect their children from the fiat of public health excesses under such oppressive laws? Why are parents not permitted to make responsible medical decisions about their own children based upon their conscientious research and intimate knowledge of their children and family medical history? Why must public health officials have the final word regarding other people's children?

If past is indeed prologue, and private vaccine firms don't take the Bioshield incentives, we can expect that the rationale for government indemnification will next be suggested for these products. But Republicans of all people should know better: Accountability is an essential cornerstone of modern commerce. It's either that, or we accept socialism, in which the government manufactures the vaccines. But for government to solely underwrite the products of private companies is a grotesque hybrid of both systems: It eliminates time-tested checks and balances by permitting the private sector to gladly accept profits, without assuming proportional risks, thereby ensuring that product safety takes a back seat. We've already adopted that system for childhood vaccines, and it has proven to be a public health disaster, destroying thousands of lives and families.

## **Ebola — The New Werewolf of Medicine**

In their support of the Bioshield Initiative on July 14th, I was struck by the number of floor speeches that mentioned a rare and relatively new disease. Rep. Billy Tauzin (R-LA), Rep. Carolyn Maloney (D-NY), Rep. Jim Turner and others all invoked one of the greatest bogeyman of the purported emerging viral menaces: ebola.

There's only one problem with this uniform invocation: The supposed dreaded ebola epidemic failed to materialize, and the ebola virus may not even be pathogenic. The CDC claimed that 108 people may have been killed by ebola in Zaire in 1995. However, there had been no further deaths and not a single case has ever been reported in the U.S. or Europe. As historian Elizabeth Etheridge wrote, "the epidemic was virtually over before their work [CDC & WHO] began" (Sentinel for Health, 1992).

Considering the speed from exposure to death, the mortalities were more likely the result of a chemical toxicological agent. A couple of other indications point in that direction: Symptoms were never seen outside the localized area where it began. And 20 per cent of the 55 million Zairens are ebola virus antibody-positive, having survived the virus without apparent disease (Dietrich J., 1995).

One guess is that those who became sick had been exposed to the deadly cleaning solvents and oils that are often left at military base camps—possibly from groundwater contamination. Indeed, civil wars extending across 8 nations in central Africa killed about 2.5 million African civilians between 1998 and 2001 alone. Yet we will spend a billion dollars for an ebola vaccine because 100 people purportedly died from the disease?! 'Fear of transmissible disease' is potent indeed.

If it were not for the gullible media and fanatical virus hunters seeking fame and fortune, this virus would have joined the ranks of the thousands of known harmless passenger viruses. According to renowned molecular biologist Peter Duesberg, "these many outbreaks provide the CDC with its inexhaustible source of epidemics" (Inventing The AIDS Virus, 1996).

Indeed, most people would be surprised to learn that there are more than one thousand outbreaks worldwide each year, including colds, seasonal flus, hepatitis, and numerous noninfectious syndromes, all running their course and disappearing, often despite remaining unexplained by scientists.

To make their job even easier, public health agencies have assumed wide discretion in announcing “public health alerts”. The CDC loosely defines an “epidemic” as 5 or more confirmed cases clustered in a concentrated area. An “area” may be a few city blocks, or an entire country. An “outbreak” is defined as at least one case in one area. Often, if one person living in a household has a confirmed case of a “communicable” disease, then there’s no need to draw blood to test anyone else with similar symptoms living in that same household.

## **Anthrax**

But the obvious and most common reference made by all the legislators sponsoring the Bioshield Initiative was to Anthrax. They all recalled the anthrax cases following 9-11, and how the U.S. was paralyzed with fear (with great help from the media stoking those fears). Some of the lawmakers experienced the anthrax incidents first-hand.

It’s important that we examine the actual threat that anthrax poses. Because of limited space, I can only deal with anthrax, even though there are many parallels I can make to the other (supposed) microbial threats that may be employed by terrorists.

I should also point out at the outset that this critique solely addresses biological agents. By contrast, chemical agents are quite dangerous and pose one of the greatest threats from terrorists. Whatever proportion of the funds from the Bioshield Initiative (and it’s likely to be small) that goes towards developing antidotes from exposure to chemical weapons will be well spent.

## **The Truth About the Pentagon’s Anthrax Vaccine**

First, it should be briefly pointed out that among the first candidates for purchase through Bioshield are next-generation anthrax vaccines. The government eventually hopes to stockpile enough doses to inoculate 25 million people. The hope is that the newer type of vaccine could cut in half the number of shots now required for anthrax inoculation, with few side effects.

The bill also would accelerate the approval process for vaccines and, in an emergency, let the government distribute certain treatments before the Food and Drug Administration approves them. But this is one reason why the current anthrax vaccine that the Pentagon swears by, has become so controversial and appears to be both ineffective and harmful.

Mainstream news organizations are rarely critical of vaccination programs. But a Dec. 12, 2003 USATODAY.com report on the U.S. military’s Anthrax Vaccine Immunization Program contained the following quotations:

- According to a 2002 survey by the General Accounting Office, the investigative arm of Congress, 84% of the Air Force Reserve and National Guard troops who received anthrax vaccines since they became mandatory in 1998 had reactions. They included difficulty breathing, muscle aches, headaches and dizziness.
- The Pentagon acknowledges that the death of reservist Rachel Lacy, 22, last April may have resulted from an anthrax vaccine. Veterans’ groups; the National Vaccine Information Center, a public awareness group; and

some members of Congress are calling for better research to determine whether more than 10 other deaths and hundreds of illnesses, from pneumonia to blood clots, may be linked to the vaccines.

- The GAO said concern about mandatory anthrax shots was the main reason cited by two thirds of pilots and crew who left Air Force guard and reserve units from 1998 to 2000. After then vaccines were curtailed for two years because of shortages. Yet the Pentagon increasingly relies on these forces to relieve regular troops. Recruiters fear long tours of duty may drive many reservists away; mandatory shots are an added worry. The Army Reserve already missed a retention goal by 6.7% this year.
- The Pentagon insists its vaccinations are safe. And for most people, they are. But they aren't risk-free. Last year [2002], the Food and Drug Administration warned that 5% to 35% of those who get shots could experience any of 40 side effects. About 6% of reactions can cause death, hospitalization or permanent disability.
- Those risks, combined with the U.S. military's failure to find any biological weapons in Iraq so far, make a strong argument for a moratorium on mandatory vaccines—at least while two safer anthrax vaccines are being developed.
- Britain, with the most troops in Iraq after the U.S., made the anthrax vaccine voluntary this year [2003]. Since then, more than half of its soldiers have refused the shots. Australia, which also has troops in Iraq, has a voluntary anthrax vaccination policy as well.

USATODAY concluded:

- More than 500 soldiers [as of this news report] already have received punishments ranging from demotions to court-martials for refusing required anthrax shots.
- The Pentagon says vaccines are essential to protect soldiers' health—particularly from anthrax in Iraq, which developed biological agents. But that doesn't trump the Defense Department's equal obligation to investigate and weigh potential problems. Instead, it clings to its policy of mandatory vaccinations, even as other countries are moving toward voluntary programs with successful results. The dug-in U.S. position forces concerned soldiers to choose between possibly endangering their health and ending their military service at a time when troop strength already is stretched.

There are even greater mind-numbing facts about the anthrax vaccine, some of which may be found at:

<http://www.federalobserver.com/archive.php?aid=1326>

<http://www.avip2001.net/NewsArticles.htm>

<http://www.milvacs.org/tiger.cfm>

## **The Truth About Anthrax & Bioweapons**

Infectious disease experts were perhaps among those hardest hit by the September 11th terrorist attack. In the months prior to the attack, many will recall that the only aspect of terrorism that was regularly discussed in the mainstream media was bioterrorism. These virus experts—which also includes medical writers like the ever-present Laurie Garrett of Newsday—issued dire warnings about biological terrorism and new exotic microbial epidemics. But then on 9-11-01, their star had temporarily fallen after 3 thousand people perished from a “mere” fuel explosion, instead of biological agents.

Ironically, their past success in instilling inordinate fear of infectious diseases has hampered even their own attempts to mitigate public alarm about anthrax months later. Their cohorts in the media had similar difficulties. Except that the media's struggle to put the threat in proper perspective has been hindered by their desire for high ratings and selling newspapers. They also didn't know enough to distinguish the genuine killing potential of chemical agents, from the dubious threat of biological agents.

Here's the truth of the matter. Anthrax is a livestock pathogen. The spores survive for about twenty years in the ground in rural areas. They normally have no effect upon humans, because a few anthrax spores cannot create an infection, and they do not come up from the ground in large quantities. A human must inhale about 10,000 spores to get sick. And such concentrations are never found in nature. Wool sorters inhale anthrax spores in small quantities continually (150-700 per hour), and only if they get a large dose will adverse symptoms begin (and some believe that their lung disease comes not from anthrax spores, but from exposure to a huge number of microscopic fibers, similar to asbestos workers). Some lab researchers working with anthrax who were interviewed by the media said that they often don't even wear protective masks; they just make sure not to draw close to it and breathe in the stuff.

Anthrax is what's called a "gram positive" bacterium. This means it has the type of cell walls which are harmless, unlike the cell walls of "gram negative" bacteria, which attack tissue. Therefore, anthrax can only attack tissue by producing a special toxin which it excretes as a waste product. One cell or spore does not produce enough toxin to start an infection. Epidemiologically, anthrax more closely resembles a chemical toxin for humans: it is dose-dependent and not contagious. Fatal human cases show almost no bacteremia at all. Yet for some animals, there is such a heavy bacteremia that it was once supposed that death occurred through capillary blockade.

## **The Epidemiology**

The reports of office or postal workers "testing positive" for anthrax are totally useless without comparing them to the normal background incidence of either asymptomatic carriers of the bacteria, or antibody positive individuals. A guess would be that there may be 10% of the population that are either carrying the numerous common wild strains, or who have residual antibodies from exposure to any strain of anthrax that occurred sometime during their lives, or from perinatal transmission, or even genetic inheritance. In New York City, for example, at one point, out of 1300 people who had been tested, only 4 people were found to have antibodies to anthrax. Without comparing that ratio to what would be found during normal times in urban areas, one cannot claim that the immune response to anthrax among those 4 people was the result of exposure from the recent mailings. (Excluding the cutaneous cases, of course.)

Increased surveillance in detection of anthrax spores in the environment is also creating something of a paradox. But only because we have no data on the normal presence of stray anthrax bacilli (virulent or not)—a microbe that appears naturally in certain environments. Some anthrax spores detected in very small quantities in "low profile" locations may not necessarily be coming from terrorists. Confirmation that the spores were processed in some fashion—electrostatic charge removed or coated with an anti-caking agent to help them remain suspended in the air—would rule out that they're naturally derived. But non-medical journalists did not know to ask officials such questions.

Among those tested, the few with symptoms (fever, cough, muscle weakness) may really just have the flu or a bad cold. Certainly, that infant with the rash wasn't unusual, particularly if he had recently received routine infant vaccinations. The anthrax wasn't even found at the ABC News building where his mother had brought the baby. It was all assumptions: (baby with rash) + (network headquarters) = anthrax. The first man that had died came from a farming region where anthrax was common.

But more likely he died from the cipro (a potent antibiotic) that was administered to him. Only about a year prior to that, the NY Times reported that antibiotics could be leading to the deaths of 98,000 Americans each year. A month afterwards, researchers revised that number down to 36,000, partly by eliminating antibody-resistant infections from the total. Nevertheless, fully 10% of our own body weight consists of bacteria. Bacterial cells outnumber total body cells by ten to one. And only about 1% of all known bacterial strains are pathogenic to humans. The other 99% are beneficial to us, and indeed, vital to all life on earth. Therefore, the disruption in the vital equilibrium of normal bacterial colonies in our bodies from the use of general germicides like antibiotics adversely affects our biochemistry so extensively as to make such mortality estimates from antibiotic use virtually impossible.

For example, thousands die each year from the flu alone. But what actually kills them is often the blood toxemia from the anti-catarrhal effects of taking antipyretics and antibiotics intended to suppress the flu symptoms. Thus, when people supposedly die “from complications” of infectious diseases (i.e. pneumonia, flu, chicken pox etc.), it is never reported that the fatal “complications” arose from the suppression of symptoms (cough, fever, swelling, mucous, skin lesions, eruptions or rashes, etc.) derived from medical treatment (that most often includes antibiotics).

Bacterial disequilibrium from antibiotics may even be the cause of major diseases. The epidemic of Crohn’s disease in the last fifty years, for example, started with the introduction of antibiotics, and progressed in parallel with the increase in antibiotic consumption. One hypothesis is that a mutated form of normal bacterial flora morphs into genetically super-resistant bacteria under constant selection pressure from antibiotic usage. A British study that tested 3545 subjects showed that the relative risk of developing Crohn’s disease was threefold, and 2.5 fold for developing ulcerative colitis, after receiving live measles vaccination (vaccines contain antibiotics and other agents that have a germicidal effect).

Adding to the distortions of infectious agents as “killers” is the fact that drug effects are rarely cited as official “cause of death”, even when the cause is known to be a drug. And no comprehensive records are kept of medication-related deaths. Doctors and hospitals rarely report such deaths. Consider this colossal study published in The Journal of American Medical Association (JAMA), April 14th, 1998. The paper analyzed 39 studies of ADRs (Adverse Drug Reactions) in the United States to estimate the incidence of serious and fatal adverse drug reactions in hospital patients. The authors estimated that on average, 2,216,000 hospital patients experienced a serious ADR, and 106,000 deaths were caused by ADRs annually in the United States—making these reactions the sixth, and possibly (at most) the fourth leading cause of death. Furthermore, these figures were NOT due to mistakes by doctors in prescribing drugs or by patients in using them. They were solely from the effects of drugs that were properly administered.

Out of the 2.2 million Americans having in-hospital adverse reactions that THEY admit to be caused by prescribed medicine (ADR), the number of unnecessary antibiotics prescribed in 2003 for viral infections was in the “tens of millions” according to Dr. Richard Besser of the CDC's National Center For Infectious Diseases. Back in 1995, he said it was 20 million.

The NY Times of October 30, 2002 carried an article by Dr. Lawrence K. Altman, M.D. on a follow-up study performed by the Center for Disease Control on the 2001 anthrax scare in news media offices, the US Senate and the Postal Service. Federal Health officials recommended 60 days of antibiotic therapy to over 9,300 workers exposed to anthrax spores in 4 states and Washington, DC. Of these, 6,178 participated in the study. The study found that 56% of personnel advised to take a regimen of antibiotics to prevent the consequences of exposure to inhalation Anthrax, did NOT complete the full course of therapy advised. Despite this, no symptoms of anthrax toxicity had developed among them, including some people who took absolutely no antibiotics (13%, or 787). They didn’t even fill the original prescription for the antibiotic. That number didn’t include people who were told to stop taking antibiotics after laboratory tests determined they had NOT been exposed to anthrax,

Public health officials concluded that there must be “improved compliance” in the future. They felt “it underscored the importance of communicating risks to individuals and of counseling them.” A bit later, in December 2002, Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, maintained that prophylactic antibiotic therapy was what stemmed any outbreaks of anthrax symptoms during the anonymous anthrax mailings.

Thus, the pro-drug bias is pretty self-evident. This CDC study was obviously not a controlled cohort study. It neither proved nor disproved the efficacy of the prescribed antibiotics. An honest public health official (a theoretical construct, I’ll admit) could have had equal justification to conclude that the antibiotic therapy had had no beneficial effect. Yet no such conclusions were suggested, nor did they appear in the media.

So, what do we actually know about the anthrax letter attacks of late 2001, early 2002? All we really know is that some people were exposed to weaponized anthrax spores. Of the 2 dozen or so who became ill, and the half dozen or so who died, we don’t know how many became sick or died from their cipro treatment, or from the anthrax endotoxin itself.

## **The Efficacy of Microbe Testing**

Some health officials quietly acknowledged that detection methods that would absolutely establish exposure or infection to anthrax do not exist. No cultural or biochemical characteristics serve to differentiate the pathogenic strain of anthrax from the many non-pathogenic saprophytic sporulating bacilli. And applying multiple antibiotics to a culture—particularly in the absence of immune antibodies in the blood—to see if it stops the growth, is too general and provides insufficient identifying information about the strain of anthrax—only one of which is pathogenic. Therefore, the invitro testing of blood cultures or nasal swabs is unreliable.

Electron photomicrographs have also been somewhat overstated as a diagnostic tool. First, what you see is a *static* picture of the tissue sample (as is also the case with stained cultures) while it’s being bombarded with billions of electrons in a vacuum—which is obviously in the absence of normal immune system chemistry. What happened before and after the photo micrograph is not observed, and therefore not known. Were the cells invaded, or did they eat the virus as food? Also, the long and arduous preparation in making the sample “electron dense” introduces numerous artifacts, to the extent that it’s hard to be sure what you started out with. If that’s not enough, a computer graphic artist adds colors to the photo-image, because electron microscopes “see” in black & white only. Imagine that! But if you’ve seen the glossy foldout displays of viruses in Time magazine, then it was already *imagined*—by the photo retoucher and the graphics editor.

Other medical technologies used by microbiologists have their own unique limitations. Gene testing, such as the Polymerase Chain Reaction (PCR)—involving the amplification of a molecular signal many thousand times—inevitably introduces quantitation errors. The character of the suspect gene is also in question since the test sample isn’t derived from purified virus. False positives are very high due to its ultra sensitivity and it was never intended to distinguish different strains of bacteria.

Noble Laureate, Kary Mullis, Ph.D., invented the PCR test for retroviruses. In his newly released documentary, “Deconstructing The Myth Of Aids”, journalist Gary Null asked Mullis to explain the apparent growing HIV epidemic. Dr. Mullis replied that what we were actually seeing was an “epidemic of HIV testing”. He meant that in the beginning of the crisis very few tests were given. But as the scope of testing dramatically increased, we started to see more positive results. This was not proof of a growing epidemic. Just of a growing number of tests to find HIV.

Likewise, medical surveillance for anthrax toxicity—the symptoms of which merely mimic the flu—increased dramatically in those months of the anthrax scare. Consequently, and not surprisingly, investigators found a handful of sick people that they attributed to anthrax. In the absence of the anthrax scare, cases with these symptoms would hardly be noticeable. As such, doctors wouldn't have bothered to test them for anthrax, and these cases would have otherwise been recorded as an acute cold or flu, and treated with common antipyretics or antibiotics, with the same number of consequent deaths from that symptom-suppressing treatment.

Appendix 2 (at bottom of article) contains David Crowe's fine short essay, "Manufacturing Certainty", which goes to the heart of the matter. It elaborates on the fallacies and limitations of various forms of microbe testing and the false "certainties" that are based on them. You'll be astounded that this so-called science determines how billions in public dollars are spent and how life-critical medical decisions are made.

From the very beginning, microbe testing—with an eye towards medical therapeutics—was built on a flawed concept. To study the characteristics of a particular bacterium, microbiologists would logically cultivate it in a petri dish, supplying the food ("substrate") upon which that bacterium proliferates. But this is not an ideal way to isolate and identify a pathogen that not only may be lurking within a complex organism, but is also responsible for the current observable symptoms.

Our bodies are not petri dishes holding solely one type of food. The "food" contained in our fluids and tissues are varied, and also varies over time, following the meals we consume (and not consume—i.e. fasting); the moods we're in; the drugs, hair shampoo, cosmetics we apply; and the exercise and other lifestyles we follow. With varied food sources, bacteria are also transforming from one strain to another, through a phenomenon known as bacterial pleomorphism. Thus, you're never sure what you're starting with when you take a fluid or tissue sample for a test.

Secondly, placing such a sample in a petri dish does not take into account the range of pleomorphism still capable among most bacteria once outside the body, particularly in the absence of immune system restraints. They can morph into different strains right before your eyes, depending on the substrate (food) being used. That bias represents a fundamental flaw in identifying and quantifying a microbial agent as the cause of a disease: You can grow almost anything given the right food. If the strain is dependent on the substrate being used, then logically you cannot isolate a specific bacterium *exclusive* of others—originally present in the body or not.

And third, even if correctly isolated and identified, mere presence does not prove causation (i.e. cause of the disease). Granted, the excreta from abnormal bacteria is indeed toxic. That's the reason they're rightly termed, 'pathogenic'. They may even be the sole agents accounting for the observed symptoms. But their origin derives directly from the putrefying matter that we may have ingested, to give one example. Pathogenic bacteria do not thrive on live healthy cells. They scavenge on dead decaying matter.

This tends to give credence to Natural Hygienic theory—fathered by Antoine Béchamp (died 1908) and Jules Tissot (died 1950), and adopted by others—that pathogenic microbes are predominantly endogenous, and are always preceded by the abnormal (i.e. diseased) state of the host. In other words, more correctly, *disease causes germs*; not *germs cause disease*. The soil determines the expression of the seed. The contents and health of our cells and bodily fluids determines the germs and genetic fragments that evolve therein. The dog wags the tail, to put it simply and bluntly.

And thus suggests the cure. By definition, a cure must defeat the cause. What is the cause? Is it the familiar runny nose, cough, stiffness, fever, and numerous rashes, swellings, lesions, and eruptions through the skin which we all refer to as the disease? Allopathic-trained physicians believe they are the causes, for these are the discomforting expressions of the body which they seek to end—and end as abruptly as possible. In fact, all of the healing arts—including homeopathy—seeks to end or limit these vital catarrhal efforts by our bodies to expel accu-

mulated metabolic waste. Today, we have drugs (sub-lethal doses of poisons) which can burden our bodies sufficiently to suppress and end painful, but necessary, these eliminative crises we experience.

But Hygienic practitioners found a better way. The presence and origins of microbial life within the body is of minor importance. Their strain and possible pathogenicity is always determined by the internal environment of the host. The administration of germicides and viral disruptors is a short-term solution at best, and at worst, adds to the toxic load on the body (i.e. just more dead cells to expel in the end). Instead, the best solution is to allow the body to continue its house-cleaning effort. The dominant idea Hygienic clinicians have used to foster elimination is to ease the load on the body during this undertaking. Since digestion requires energy and resources by organs that might otherwise be engaged in processing metabolites (food) and eliminating their end-products, not ingesting food for a period of time would be the logical solution. Indeed, fasting on distilled water has in fact saved hundreds of thousands of lives, without the risks of secondary effects caused by drugs. In addition to curing infectious diseases, it has also had success in treating acute or chronic disease. Everyone with supposed sexually transmitted diseases, to shingles, to atherosclerosis and more have benefited. Many people I know, including myself, have been cured.

## **Weaponizing Anthrax**

Another contrivance then was that terrorists might weaponize anthrax by drying a slurry and grinding it to particles 1-5 microns in size. (The bacteria are 1 by 3 microns.) The first problem is that the gunk would dry like glue; and after grinding, it would still be glue. Even if it were washed first, the bacteria would be sticky and would dry like glue. The second problem is that bacteria do not tolerate grinding. They are as fragile as egg shells. Grinding is how they are broken apart for biochemical tests. Even if only 1% were broken, the result would be a sticky gum, not a powder; and more like 99% would be broken before getting 5 micron particles.

On eight separate occasions between 1990 and 1993, Japan's Aum Shinrikyo cult tried to spray anthrax and botulinum toxins from trucks and rooftops in Tokyo, and each time it failed. No one was infected, or at least no one died. The main reason: The terrorists had problems developing effective spray nozzles for aerosolizing the agents in the 1 to 5 micron range necessary for them to lodge in the lungs.

The lethality of such airborne attacks depends largely on the size of the particle dispersed. Particles in the 1 to 5 micron diameter deposit efficiently in the lungs, while submicron particles tend to be exhaled. Particles above 5 microns tend to become trapped in the upper respiratory tract, where higher doses are required to start an infection. Those above 20 microns in diameter tend to settle to the ground quickly and, as a result, do not travel far downwind.

Anthrax bugs can also be delivered in the form of liquid slurries. Gastrointestinal anthrax is rapidly fatal in many cases. But experts say reservoirs aren't an attractive target for terrorists, because they'd have to dump large amounts of biological agents to overcome dilution. Also, water supplies are filtered and chlorinated to kill naturally occurring microorganisms, which would neutralize anthrax and other bacteria. In fact, terrorist contamination of water supplies is extremely rare, according to a study of such cases by Jessica E. Stern, author of "Would Terrorists Turn to Poison?"

## **How Effective are Biological Weapons ?**

Aum Shinrikyo is the only example of a terrorist group that tried a biological weapon for mass murder. The cult ended up turning to a chemical—sarin gas—to attack Tokyo subway commuters, killing 12 and hospitalizing about 1,000. In fact, threats or actual use of chemical or biological weapons account for only 52 cases out of more than 8,000 in the RAND Chronology of International Terrorism since 1968. Many are just scares.

Wilkening counts more than 120 anthrax hoaxes alone which have been reported in the media nationwide since October 1998.

The apocalyptic-type of fanatics want to kill as many people as possible. Radical Islamists want to achieve that too, but also wish to make a big media splash in the process. Hence, huge explosions with many dying violently and suddenly are more to their liking. By contrast, people dying slowly and quietly in hospital beds with skin rashes or bronchial conditions doesn't make the front pages.

Biological warfare generally, is a flawed concept. The only route usually considered is airborne, because bombs and missiles create the delivery system. There is no natural disease in existence which is propagated in that manner. Even the airborne diseases require close contact with the source (infected person). The reason is because wind disperses the agents too thinly, and gravity brings them down too rapidly. Increasing the quantities massively will get a few persons, but only a few. Those actually infected on a battlefield can keep on shooting and killing for at least 2 weeks, until the infection either kills them or their immune system defeats the infecting agent. Who needs two weeks of that when a chemical agent can kill and maim instantly?!

Furthermore, very few of the diseases which are mentioned as biowarfare agents are suitable for airborne dissemination. Brucellosis is not. It is disseminated through body fluids. Plague is not. It is carried by insects from the blood of one animal to another. The insects do not pick it up from the ground. Decades ago, government scientists even released airborne cholera in the NYC subway system, with no effects. The only way biological warfare agents can be used in a significant manner to create disease is to inject them into the victims.

## **“Controlled” Experiments**

And even then, mortalities are not likely caused by the biological agents themselves. Biological pathogens used in serums on test animals, for example, contain toxic preservatives and adjuvants that are injected directly into their bloodstreams—bypassing normal immune system barriers. These injected agents also contain protein growth mediums that supports the pathogenic cultures. In the absence of digestive juices in the bloodstream, they immediately start decomposing and yielding known endotoxins from normal protein putrefaction. Consequently, animals often succumb to blood toxemia or septicemia and die. Their deaths are erroneously attributed to the pathogen being tested.

Volumes have also been written showing that animals make poor medical models for human diseases. Animals react to drugs, vaccines, and chemicals very differently than humans, and also differently to other animal species. Guinea pigs die from penicillin, but they can safely eat strychnine—a deadly poison for humans, but not for monkeys. Aspirin kills cats, but sheep can swallow enormous quantities of arsenic. Poor animal models are sometimes the reason drugs are recalled from the marketplace, but only after a high enough death toll among humans is finally noticed. It all amounts to a waste of human and animal life.

There's also evidence indicating how easily stressed lab animals succumb to illnesses and die, from the poor conditions of their captivity, and the artificial food and environment they're subjected to. There may be more to the humorous one-liner than meets the eye: *“It was recently discovered that research causes cancer in rats”*. These factors and more make animal studies very poor analogs to human health, and often contribute to faulty conclusions about the risk for humans from chemical toxins, and especially from biological pathogens.

Pathogenicity is also a function of the general state of health of the host, or target group. For example, the U.S. Government Bulletin, Hygienic Laboratory, No. 123, February 1921, is a series of telling experiments that were conducted by U.S. Government doctors to determine the true “contagious” character of “influenza.” To achieve their objective, the experimenters subjected great numbers of volunteer Navy personnel to “exposure” by various “known methods of transmission”: Ten volunteers were inoculated with secretions from the nose and throat and

with blood from typical cases of influenza. Thirty men were inoculated by spray, swab or both of the nose and throat. Ten volunteers were placed close to selected patients who had the flu and were then exposed by being coughed in the face. The exposure continued for thirty minutes. Fifty volunteers were subjected to the same procedure at another location. One hundred were sprayed and dosed with cultures of the most virulent strains of flu possible to obtain and observed for seven days. The results were: “no appreciable reactions”.

In nature, under normal conditions, maintaining health depends on keeping the host and the pathogenic microbe in equilibrium. It does not merely involve the total elimination of the latter. Yet that remains the simplistic approach that influences conventional medicine today.

Renowned bacteriologist, Rene Dubös (inventor of streptomycin; 1968 Pulitzer Prize winner) wrote a great deal on the limitations of the conventional Germ Theory, and on the artificial/erroneous outcomes from laboratory experiments. In his classic, “Mirage Of Health” (1959), page 89, he wrote:

*“The ease and predictability with which Pasteur, Koch, and their followers produced disease at will in experimental animals seem miraculous in view of the difficulties that have so often been encountered in subsequent attempts to produce disease in man. Their success seems incompatible with the course of natural events. The fact of the matter is that Pasteur and Koch did not deal with natural events, but with experimental artifacts. The experimenter does not produce nature in the laboratory. He could not if he tried, for the experiment imposes limiting conditions on nature; its aims are to force nature to give answers to questions devised by man. Every answer from nature is therefore more or less influenced by the kind of questions asked.”*

*“The art of the experimenter is to create models in which he can observe some properties and activities of a factor in which he happens to be interested. Koch and Pasteur wanted to show that microorganisms could cause certain manifestations of disease. Their genius was to devise experimental situations that lent themselves to an unequivocal illustration of their hypothesis—situations in which it was sufficient to bring the host and the parasite together to reproduce the disease. By trial and error, they selected the species of animals, the dose of the infectious agent, and the route of inoculation, which permitted the infection to evolve without fail into progressive disease. Guinea pigs always develop tuberculosis if tubercle bacilli are injected into them under the proper conditions; introduction of sufficient rabies virus under the dura of dogs always gives rise to paralytic symptoms. Thus, by the skillful selection of experimental systems, Pasteur, Koch, and their followers succeeded in minimizing in their tests the influence of factors that might have obscured the activity of the infectious agents they wanted to study. This experimental approach has been extremely effective for the discovery of agents of disease and for the study of some of their properties. But it has led by necessity to the neglect, and indeed has often delayed the recognition, of the many other factors that play a part in the causation of disease under conditions prevailing in the natural world—for example, the physiological status of the infected individual and the impact of the environment in which he lives.”*

## **The Bias of the Profession**

Since allopathic trained people run the health bureaucracies, every inflammatory (catarrhal) symptom of bodily elimination is assumed to be an infectious disease. All evidence of malnourishment, toxemia, or a toxicological agent is dismissed in favor of a microbiological agent—which are plentiful and are readily available candidates to blame. For the public health investigator, obscurity comes with the former. But the latter will accompany research grants, a published article in a leading journal, medical awards, recognition and prestige, and profits from patentable test kits, techniques for growing the strains, treatments or vaccines. And of course, blaming a microbial agent (as opposed to a chemical toxin) for a disease will always engender importance to the institutions involved with infectious disease, and make the public feel dependent upon their expertise, products, services, and technical counsel.

Therefore, the bias in favor of attributing cause to microbiological agents rather than toxicological chemicals is too great to ignore, and high time it's openly acknowledged. "Appendix 1" contains a short list of this historic bias, and the tragic consequences of it.

## **Reality: a "Problem" for Biologists**

While anthrax spores are resistant to heat and dryness, they're no match for rain. A downpour would wash most of them out of the air, where they'd become relatively harmless. Also, humidity and ultraviolet light decay the bugs. So does oxygen. Anthrax and botulinum spores multiply only in the absence of oxygen.

These problems and more rank anthrax and other biological agents as very poor battlefield weapons. Uncontrolled variables as wind direction, lengthy duration between infection and death, and all the rest makes biologicals much more inferior as weapons than are chemical agents, which can at least kill immediately and are more resilient to weather and decompose more slowly. It is therefore rank stupidity to subject soldiers heading to the battlefield with the debilitating and crippling effects of vaccines for small pox, or anti-toxins for botulism, anthrax, and other biological agents. Those who can make it onto the battlefield after all that are still not left in optimum health to deal with the rigors of fighting in a war.

Another aspect beyond normal biodegradability, is the "problem" of bacterial Pleomorphism. Rod-shaped anthrax bacillus, for example, can literally transform into the spherical coccus from exposure to ultraviolet light. Pleomorphism refers to the transformation of one distinct strain of bacteria into other strains within a single life cycle. For example, the virulent tubercle bacillus could be made to degenerate into harmless non "acid-fast" cocci, and then into "diphtheroid" coccobacilli, just by altering their food or environment. This bacteriological phenomenon was observed throughout the history of bacteriology by the noted biologists Antone Bechamp, Altman, Cohn, DeBarry, Dienkowski, Fremy, Galippe, Lankester, Koch, Kurth, Manwaring, Nagelli, Portier, Rosenow, Serval, Zops, Metchnikoff, J. Tissot, Raymond Rife, and currently, Gaston Nesson.

Since all strains of bacteria can potentially share all bacterial genes, then strictly speaking, there are no fixed species in the bacterial world. According to Canadian bacteriologists, Sorin Sonea and Maurice Panisset (*The New Bacteriology*. Boston: Jones & Bartlett, 1983), all bacteria are one organism, one entity capable of genetic engineering themselves on a planetary scale.

"Fixed species of bacteria" is the fundamental precept of the biomedical model of specific etiology of disease (classifying a specific germ as the singular causative agent of a specific disease). Stability of the strain is also essential for it to be effective bioweapon. But Pleomorphism implies that conventional infectious disease theory is based upon a faulty construct. Indeed, highly processed and concentrated biological pathogens aside, in the natural environment, the prior state of health of the host will usually determine the virulence of any natural exposure.

## **The History of Anthrax**

Finally, the mythos of anthrax originates with Louis Pasteur—a self-promoter who helped orchestrate the anthrax fables. The following story is not found in the movies and popular fiction about Pasteur, but it's one of many found in "Bechamp or Pasteur" (©1923 Ethel Douglas Thompson) and other books on the history of medicine.

To boast the claimed efficacy of his anthrax vaccine, Pasteur held a public demonstration at Melun, France in 1881. "Pasteur's assistants injected his formula into 25 sheep, left another 25 unprotected and then injected all 50 with virulent anthrax bacteria. He triumphed; only the vaccinated sheep survived," writes Lawrence K. Altman, M.D., in his article on Pasteur in the Science section of *The New York Times*, (5/16/95).

The “Miracle of Melun,” as Paul DeKruif refers to it, was a grand personal triumph for Pasteur. It was accomplished in front of a vast throng of people comprising not only farmers and veterinarians, but councillors, senators, and other dignitaries-VIP’s who only exhibited themselves to the public at the weddings and funerals of royalty. France called Pasteur her “greatest son” and conferred on him the Grand Cordon of the Legion of Honor. Paul DeKruif writes: “...agricultural societies, horse-doctors, poor farmers whose fields were cursed with the poisonous virus of anthrax—all sent telegrams begging him for thousands of doses of the life-saving vaccine...”

However, it began to appear that “The Miracle of Melun” was no miracle at all, and that the vaccine was a killer. DeKruif writes, “Gradually, it was hardly a year after the miracle of Melun disturbing letters began to pile up on his desk; complaints from a dozen towns of France and from places in Hungary. Sheep were dying from anthrax—not the natural anthrax they had picked up in dangerous fields—but anthrax they had got [sic] from those vaccines that were meant to save them!”

The Hungarian government was so alarmed by the devastation wrought by Pasteur’s anthrax vaccine that it strickly forbid its use, and the Sanitary Commission of the Hungarian Government in 1881 issued a scathing report which stated in part: “The worst diseases, pneumonia, catarrhal fever, etc., have exclusively struck down the animals subjected to injection. It follows from this that the Pasteur inoculation tends to accelerate the action of certain latent diseases and to hasten the mortal issue of other grave affections.”

The complaints against the anthrax vaccine became so numerous and from so many different quarters that Pasteur’s biographer wrote that he dreaded opening his letters and “shut his ears to snickers that sounded from around corners.” He tells that the most cruel blow came “from the laboratory of that nasty little German Koch [Robert Koch] in Berlin,” who sent “a cold, terribly exact scientific report,” which “ripped the practicalness of the anthrax vaccine to tatters.”

## **Conclusion:**

The threat of bioterrorism and lethality of biowarfare is exaggerated through a combination of ignorance, propaganda, and inordinate fears of infectious disease. Researchers, who should know better and often do, are paid to study the subject, so they don’t admit the futility of it. And people without medical backgrounds don’t feel qualified to evaluate false claims. During the anthrax scares following 9-11, I recall there were some biowarfare experts that tried to be candid about the low level of threat that anthrax posed. However, CDC and other health officials had grossly overstated the threat. They want the public to be frightened enough of microbial pathogens to: (1) acquiesce to increased public funding for basic medical research, treatments and prophylactics, (2) value the role of infectious disease “experts” and elevate their status in society, and (3) validate their simplistic disease paradigm (germ=disease; drug=cure; vaccine=prevention) into which the medical profession has invested so much, and relies upon to sustain public perception of their importance. A fearful public dependent on medical salvation is what sustains the biomedical complex. In the distant past, fear of our mortality sustained the dominant religious institutions of their day. Modern medicine has supplanted religion, with a belief system just as powerful.

One cannot assess the efficacy of Project Bioshield in a vacuum. This article explored some of the critical backdrop issues: a realistic assessment of the threat that biological weapons actually pose; the motives and machinations of the biomedical industry; and the flaws and (past) failures in financing the attendant vaccination campaigns. ———— END ————

**AUTHOR'S POSTSCRIPT:** Technical information in the “weaponizing Anthrax” section were based on Paul Sperry’s Worldnetdaily.com article, and Gary Novak’s website, “www.whatreallyhappened.com”.

APPENDIX 1 — From Peter Duesberg’s “Inventing The AIDS Virus” (Regnery, 1996):

Thousands of lives have been sacrificed due to the bias in favor infectious disease theory. The following are some examples:

—Scurvy was thought to be a microbial disease in the 19th Century, before it was found to be a Vitamin C deficiency.

—The high mortality of the Spanish Flu pandemic of 1918-19 was thought to be a contagious disease. Dr. Roger Cunningham isolated the gene fragment, hemophilus Influenza from secretions of the sick. Instead of being contagious, this microbe is a normal inhabitant of our upper respiratory tract that flourishes after we get ill; not before.

—The U.S. Public Health Service insisted for over 10 years in the 1920s that pellagra was infectious, rather than a vitamin B deficiency as had been proposed by Joseph Goldberger (Bailey, 1968).

—Tertiary syphilis is commonly blamed on treponemes, but is probably due to a combination of treponemes and long-term mercury and arsenic treatments used prior to penicillin, or merely to these treatments alone (Brandt, 1988; Fry, 1989).

—“Unconventional” viruses were blamed for neurological diseases like Kreutzfeld-Jacob’s disease, Alzheimer’s disease and kuru (Gajdusek, 1977). The now extinct kuru was probably a genetic disorder that affected just one tribe of natives from New Guinea (Duesberg and Schwartz, 1992). Although a Nobel Prize was given for this theory, the viruses never materialized and an unconventional protein, termed “prion,” is now blamed for some of these diseases (Evans, 1989c; Duesberg and Schwartz, 1992).

—Shortly after this incident, a virus was also blamed for a fatal epidemic—the SMON epidemic—of neuropathy, including blinding, that started in the 1960s in Japan, but it turned out later to be caused by the prescription drug clioquinol (Enterovioform, Ciba-Geigy) (Kono, 1975; Shigematsu *et al.*, 1975).

—In 1976 the CDC blamed an outbreak of pneumonia at a convention of Legionnaires on a “new” microbe, without giving consideration to toxins. Since the “Legionnaire’s disease” did not spread after the convention and the “Legionnaires bacillus” proved to be ubiquitous, it was later concluded that “CDC epidemiologists must in the future take toxins into account from the start” (Culliton, 1976). The Legionnaire’s disease fiasco is in fact the probable reason that the CDC initially took toxins into account as the cause of AIDS (Oppenheimer; 1992).”

—“The pursuit of harmless viruses as causes of human cancer, supported since 1971 by the Virus-Cancer Program of the National Cancer Institute’s War On Cancer, was also inspired by indiscouragable faith in the germ theory (Greenberg, 1986; Duesberg, 1987; Shorter, 1987; Anderson, ‘99’; Editorial, ‘99’; Duesberg and Schwartz, 1992).

—It was claimed in the 1960s that the rare Burkitt’s lymphoma was caused by the ubiquitous Epstein-Barr virus, 15 years after infection (Evans, 1989c). But the lymphoma is now accepted to be non-viral and attributed to a chromosome rearrangement (Duesberg and Schwartz, 1992).

—Further, it was claimed that noncontagious cervical cancer is caused by the widespread herpes virus in the 1970s, and by the widespread papilloma virus in the 1980s—but in each case cancer would occur only 30 to 40 years after infection (Evans, 1989c). Noninfectious causes like chromosome abnormalities, possibly induced by smoking, have since been considered or reconsidered (Duesberg and Schwartz, 1992).

—In addition, Ubiquitous hepatitis virus was proposed in the 1960s to cause regional adult hepatomas 50 years (!) after infection (Evans, 1989c). In the 1980s the rare, but widely distributed, human retrovirus HTLV-I was claimed to cause regional adult T-cell leukemias (Blattner, 1990). Yet the leukemias would only appear at advanced age, after “latent periods” of up to 55 years, the age when these “adult” leukemias appear spontaneously (Evans, 1989c; Blattner, 1990; Duesberg and Schwartz, 1992).

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## MANUFACTURING CERTAINTY

By David Crowe

June 23, 2003

ALSO AVAILABLE TO READ AT ANY ONE OF THESE LINKS:

<http://davidcrowe.ca/SciHealthEnv/ManufCertainty.html>

[http://www.questionsquestions.net/docs04/0725\\_hiv\\_sars\\_test.html](http://www.questionsquestions.net/docs04/0725_hiv_sars_test.html)

[http://www.aliveandwell.org/html/questioning/manufacturing\\_certainty.html](http://www.aliveandwell.org/html/questioning/manufacturing_certainty.html)

<http://www.virizen.net/hm/671.html>

<http://www.vaccinationnews.com/DailyNews/2003/June/23/ManufacturingCertainty23.htm>

*“Tests indicate that you have a 90% chance of being infected with a deadly virus. There is a 50% probability that it will cause disease within the next 10 years, and a possibility that it never will. If you take the drugs that I offer, there is a significant risk that you will experience a great decline in your quality of life, and a possibility that the drugs will kill you.”*

Although it might be the truth, you are unlikely to hear a doctor saying this, because neither the doctor nor the patient can deal with the uncertainty that it admits.

Technology is the practical application of science, and one of the major distinctions is its need for certainty. Studying semiconductor physics can be a beautiful thing, but it remains pure science until a discovery results in products that can be reliably manufactured and used. Biological systems, especially human beings, are far more complex and less predictable than inorganic systems. Medicine, being the practical application (technology) of human biologic science, requires a high degree of certainty before new discoveries can be applied.

Unfortunately, a feeling of certainty can be manufactured, and there are many motivations to do so.

On October 12, 2001, a CDC scientist phoned then mayor of New York City, Rudolph Giuliani, to tell him that, “with a high degree of probability”, a sample of skin from an NBC employee in Manhattan was positive for cutaneous anthrax. The CDC scientist had this confidence, because he had confidence in a test that a colleague had previously developed. But this was not good enough for Giuliani. “Don’t give me that stuff. Is it anthrax or not?” An unqualified “Yes” from the CDC scientist kicked off the anthrax crisis in New York City. [Altman, 2001]

A “No,” under the circumstances, would have been almost impossible. The consequences for the CDC and Giuliani, if others had later confirmed anthrax, would have been devastating to their careers. While reporters might have questioned the accuracy of a “No,” there was not a whisper of dissent on the “Yes.”

Medical tests are a common way to manufacture certainty. A test usually measures a ‘surrogate marker’ for a condition, something that is otherwise invisible, or at least much more difficult, expensive and time consuming to find directly. A nicely packaged test can instill confidence and, in a sense, create a disease when a positive test result is accepted without any symptoms being present.

An HIV test is perhaps the best example. A positive test is devastating to most people, particularly those who are outside the traditional risk groups and completely unprepared. Feelings of doom come, not surprisingly, even to those who are perfectly healthy at the time of the test [Gala, 1992].

Desperate feelings lead to desperate actions, and, for HIV, the desperate action is to take AIDS medications. Antiviral drugs have fatal side effects, and even those who avoid that are likely to experience a destruction of their quality of life, even if they were completely healthy at the time of the test [Goodman, 2002].

Obviously, the doctor and patient must feel certain that tests are accurate. If the patient was told that there was only a 90% certainty that the test was accurate they might be much less likely to take medications carrying such risks.

The almost universal impression among scientists, the media, governments and the general public that HIV tests are accurate enough to stake your life on is, strangely enough, so strong because there is no absolute measure against which the tests can be validated. Instead of accepting this as uncertainty over whether the tests are meaningful, it is accepted as lack of proof that they are not highly accurate.

All that Robert Gallo’s and Luc Montagnier’s research teams found was a high correlation between their antibody tests and AIDS. People with AIDS had a high probability (88% in the case of Gallo [Sarngadharan, 1984]) of testing positive, and people without AIDS had a very low probability of testing positive. A huge conceptual leap over a chasm of uncertainty was to conclude from this evidence that a positive test in a healthy person proved they had a condition that would inevitably kill them.

The science of HIV testing has progressed since then, but only in technological ways (such as the use of monoclonal antibodies); the original logical uncertainties still exist. Almost every scientific paper concerning HIV tests still uses antibody tests as the “gold standard.” This is unusual because antibody tests, even if one ignores the possibility of cross reactions, can only prove past exposure to a virus, not current infection.

HIV antigen tests, which are more direct, are only positive in about half the people who are HIV-antibody positive [McKinney, 1991; Semple, 1991]. This finding is explained away through an immune reaction which masks the antigen. But, this implies that the HIV infection is conquered, which is not compatible with the notion that HIV infection is incurable. Virus cultivation, often erroneously called ‘isolation’ is an even older method than antibody testing for HIV, but apart from being time consuming, expensive and difficult to perform, it also is negative quite frequently, and a positive antibody test usually trumps a negative culture [Layon, 1986] (and vice-versa [Eur Coll, 1991; Imagawa, 1989]).

The major new test since the early days of AIDS is the Polymerase Chain Reaction, often called ‘viral load’ when used for HIV tests. This also takes a back seat to antibody tests [Roche, 1996], likely because it is so ultra-sensitive that the risk of a false positive is high. Furthermore, detecting a snippet of genetic material (RNA or DNA, depending on the type of test) does not prove that the entire genome is present, and obviously does not prove that infectious virus particles are present. This test is particularly uncertain because the genetic material does not come from purified virus. Even accepting the test’s ability to specifically detect HIV DNA or RNA, one research team estimated that only one infectious virus particle was present for every 60,000 measured by viral load! [Piatak, 1993; Roche, 1996]

All HIV tests are indirect, even virus 'isolation' by culturing. Consequently, some 'gold standard' is necessary to validate them [Cleary, 1987; Abbott, 1997; Meyer, 1987; Daar, 2001; Papadopoulos, 2003]. The only standard that is reasonable for a virus is actual purification direct from body fluids of people who are HIV infected and the inability to purify from people who are not. Virus purification would allow the proper characterization of the virus, so that antigens, antibodies, DNA and RNA that are generally believed to be from HIV could be proven to be from HIV (or not).

Without a 'gold standard' for HIV infection the only way to validate the test is by repeating the test or by comparing it against different (also unvalidated) tests. This can establish the reproducibility of the test, but not its specificity (ability to react with the target and therefore avoid false positives) or sensitivity (ability to react to cases of infection and therefore avoid false negatives).

US army researchers claimed that the specificity of HIV antibody tests was only 1 false positive out of 135,187 tests [Burke, 1988]. However, although they claimed to have established a high specificity for antibody tests, they were actually verifying only reproducibility, and the researchers did not actually prove that the 15 people from this low risk population who were deemed to have had true positive tests actually had the virus in them.

Modern diseases that are blamed on a virus are often little more than the test because the disease can exist without clinical symptoms. There is an average of 10 years between becoming HIV positive and the first signs of AIDS in both rich countries [Munoz, 1995] and poor [Morgan, 2002]. In that time the HIV test is the only sign that anything is wrong. Worse yet, a low CD4 cell count test can result, in the United States, in a diagnosis of AIDS (not just HIV infection), again without any clinical symptoms. But even without symptoms a diagnosis of HIV infection or AIDS will still often result in treatment because of everyone's confidence in the tests.

Other viral diseases might not have a long incubation period, but the test still plays the prime role in defining the condition. West Nile disease, for example, is associated with no illness in the majority of people who test positive, and serious illness in only about 1 out of 150 [Petersen, 2002]. The symptoms, when they do occur, are indistinguishable from many other viral diseases [CDC, 2002]. This has not resulted in a call to question the accuracy of the tests. Instead, the certainty that any symptoms found along with a positive test are due to the virus is so great that when the symptoms are uncharacteristic scientists want to add them to the definition, rather than to ask whether the tests are accurate and whether presence of a virus is proof of pathogenicity [Glass, 2002; Leis, 2002]

One of the strange phenomena with HIV and AIDS science was overwhelming feeling of certainty that crept over scientists in the mid-1980's. Only 3.4% of papers in 1984 associated a reference to Gallo's original 1984 papers on HIV (HTLV-III) with "explicit and unqualified" assertions that HIV caused AIDS but this increased to 25% in 1985 and 62% in 1986, even when these papers were referenced alone. [Epstein, 1996]

Kary Mullis, who received the 1993 Nobel for Chemistry (ironically because of his invention of the Polymerase Chain Reaction) has asked many scientists for a set of references that constitute proof that HIV causes AIDS [Duesberg, 1996] and has not yet received them. Yet, even without this proof being written down in a scientific paper, certainty still reigns.

SARS illustrates how quickly researchers can manufacture certainty today. The mainstream media (which claim to be "responsible") have ensured us that everyone knows SARS is caused by a Coronavirus. Reports from Dr. Frank Plummer, one of Canada's top virologist, that a diminishing percentage of patients (30% by mid-April) are testing positive do not dissuade them from this belief [Altman, 2003]. Everyone knows that there is no possible explanation for all the patients having some connection with the original cases other than an infectious agent, even though for some outbreaks there was no solid connection, and tautologically, the epidemiologic connection

is supposed to be present before diagnosing SARS (as opposed to some other disease with similar symptoms). And, everyone also knows that there is no other explanation for the severity of the disease, certainly not the new phenomenon of aggressive prescription of steroids and the antiviral ribavirin that occurred as the fear of the outbreak spread [Koren, 2003].

What HIV/AIDS science took two years to do, SARS science took only two months to accomplish. I predict that a Coronavirus test will soon become part of the SARS case definition, which will immediately create a 100% correlation between the Coronavirus and SARS symptoms. Just as with AIDS, the same symptoms without a positive test will be another disease, and not taken nearly as seriously.

People demand simple answers to complex problems and modern medical science delivers. We are told that tests are highly accurate, that drugs will cure conditions or, if that is not possible, that they are the best bet. We are told that environmental conditions play little role in modern, emerging diseases. Alternative therapy is scoffed at because it has not been 'proven' effective through randomized, placebo-controlled clinical trials.

The fundamental reason why this confidence game continues to be played is because of human laziness. It is much easier to learn about science by rote than by examining evidence and making up one's own mind. Obviously, not every pronouncement on science can be taken seriously, so the status of a person or publisher becomes the way to distinguish between "good science" and "junk science." Many people do not believe that they have the ability to understand scientific papers. The media, even most science reporters, are much more productive if they also adopt this attitude. Among scientists, there is a hierarchy which is constructed from the anonymous peer review system for publication and grant support. This allows longer-serving officers of science to anonymously subvert the attempts of younger scientists (and outsiders) to reappraise current dogmas, by denying them the ability to publish and obtain research funding.

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*"For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled" ...Richard P. Feynman*