

# **A Special Interview with Dr. Meryl Nass**

## **By Dr. Mercola**

**DM: Dr. Joseph Mercola**

**DN: Dr. Meryl Nass**

### **Introduction:**

**DM:** Hello, this is Dr. Mercola. Today, I am here with Dr. Meryl Nass who is an expert, one of the premier experts actually in the anthrax vaccine. We are very grateful that you have the opportunity to join us today. Welcome Dr. Nass.

**DN:** Thank you for inviting me.

**DM:** I'm wondering if you could share with our viewers a bit about your history and how you first became interested in this relatively obscure but important vaccine.

**DN:** Twenty three years ago when I was a member of PSR, I lived in Amherst Mass...

**DM:** PSR is Physicians for Social Responsibility?

**DN:** Yes. Students were looking into Pentagon contracts at the university and found that there was a researcher at UMass who had worked at Fort Detrick previously and was doing work on anthrax. They thought this was probably germ warfare research and asked my group to look at it and help them understand it.

**DM:** What was your group?

**DN:** This was the Physicians for Social Responsibility, a group in that area.

**DM:** So you had an administrative position in that group?

**DN:** No. I was a member. Anyway, I got tasked with doing that. When I read the contract, I found even though it was titled a contract for improved anthrax vaccines it actually had to do with some primitive genetic engineering of anthrax. I thought it was rather interesting and odd that the meaning of the contract had been hidden. I thought I would just read a little bit more about anthrax and see what was going on with this government project.

**DM:** This was about 1988?

**DN:** This was about '88 exactly. At the same time a Quaker group in the area also decided to get involved with this. I looked into anthrax epidemics over the last 15 years and read a bit about what research the army program that had sponsored this UMass research was doing and very quickly, I came up with two findings that I thought were important. One was that the anthrax epidemic that occurred in Rhodesia during its civil war had completely different characteristics than all other anthrax epidemics.

The other was that the army actually had a mission statement and there was a treaty the U.S. had signed that was very specific about what sort of research could be done that was defensive and what would be offensive and would not be allowed under the Biological Weapons Convention. And yet the army seemed to be transgressing its own mission statement and treaty.

I felt like those were two things that should come out in the open. I tried to encourage journalists to report on them and nobody was interested and they said, you'll have to do it yourself and so I decided – particularly because the anthrax epidemic in Rhodesia had killed probably 200 or more people, I felt that I had a responsibility to identify biological warfare.

It seemed that nobody was really looking at epidemics to try and figure out whether they were naturally caused or deliberately caused. And that it would be worth trying to come up with a methodology for doing that because it could serve to prevent people from using biological warfare. Up until then if you used biological warfare nobody would be any wiser and you would get away with it without any consequences.

I felt that if people potential perpetrators realized there were scientific ways they might be detected that it would be a good deterrent. I felt look I'm a doctor. I make enough money. I can afford to do this on my own time, call it a hobby, and I'll just do this work and I did.

**DM:** So the initial interest was to safeguard the population at large from bioterrorists using anthrax as a bioterrorism weapon.

**DN:** Right. And also try to create a model for investigating epidemics that could be applied to other agents as well.

**DM:** Have you made progress on that initiative?

**DN:** I did. I spent 3-1/2 years working on that and almost 20 years ago, published a paper which dissected the Rhodesian epidemic. I think now everybody in the field would agree that that was due to biological warfare and sort of showed how one could look at different aspects of an epidemic to make a determination as to whether it was natural or not.

**DM:** Terrific. So you finished your paper about nearly 20 years ago. Most I think of us are familiar with anthrax vaccine as a result of the post 9/11 process where shortly after that event, I think it was months later or so, there was this risk or threat of anthrax being passed around in letters being mailed around the country.

I'm wondering if you could place in the proper perspective the use of anthrax as a biological warfare agent and maybe contrast that with the risk of acquiring the disease naturally.

**DN:** Sure. Anthrax is a bacteria that forms a spore unlike the vast majority of bacteria. The spore is a very, very strong coat that allows anthrax to stay alive for a hundred or more years and then when the right circumstances of temperature and humidity and growth factors are available, the spore will open up and the bacteria will start reproducing.

That spore that anthrax makes naturally with no effort on our part enables it to be used as a primitive biological weapon so that you can explode it from a bomb or drop it from an airplane and it doesn't get dried out and killed but it continues to have that potential to reproduce again and cause disease.

When it's in the air you can inhale it. That can cause a very serious disease in humans that can kill you in a very short period of time.

**DM:** So these spores replicate into the bacteria, thousands, millions of them. What does the disease look like in someone who is actually inhaling these spores and actually has an infection with the bacillus of anthrax?

**DN:** You normally get the spores transported to lymph nodes in the chest and you will get pleural effusions, fluid around the lungs often bloody, growth in lymph nodes and then basically a septicemia from anthrax, maybe a meningitis as well. It causes overwhelming infection so that you could get up to a billion organisms per milliliter of blood. So you can die in two days or a week something on that order. But it's very susceptible to antibiotics.

**DM:** That's the next obvious question is how effective are antibiotics?

**DN:** If you treat early with antibiotics it's very effective. If you treat when the patient has inhaled the spores but isn't sick yet the antibiotics are 100% effective.

**DM:** That's good. Are there any particular antibiotics that work better than others?

**DN:** Everything except cephalosporins works on the native anthrax because it just happens to have a gene for cephalosporin resistance.

**DM:** And that's just spontaneous in nature?

**DN:** Yes, right. For people who got sick after the anthrax letters, the CDC gave them two or three antibiotics because it was a life threatening event. But for all those people who are exposed and didn't really get ill one antibiotic was more than enough and as I said between 10,000 and 30,000 people were given antibiotics after the anthrax letters who might have been exposed and not one of them developed anthrax.

**DM:** Typically, the normal person in their routine experience of daily life will not encounter anthrax. It's not something that they would expect to encounter.

**DN:** That's right.

**DM:** What's the reason for that?

**DN:** There isn't a lot of anthrax around. It lives on soil. There are trade routes where cattle were driven going from Louisiana up to the Dakotas and beyond. In the old days some cattle

would die of anthrax would be buried or just left in those areas and you can collect spores in the ground.

In areas where they still have anthrax spores approximately every 10 or 20 years under very specific climate conditions the spores will germinate and will increase in number in the soil and grazing animals will ingest them and come down with anthrax. So that happens in the U.S. and in most other countries occasionally in a small number of animals in a small area where the spores are resident.

**DM:** But the animals can't transmit the disease to humans.

**DN:** The only way is if you use a product from that animal so that if you make clothing using the animal's skin you could get it. If you make a brush out of the animal or if you eat the animal you can also

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potentially get gastrointestinal anthrax or cutaneous anthrax from butchering the animal which is much more common.

**DM:** You had mentioned earlier the spores lasts for a hundred years so that would be that specific spore but the spore can actually explode and replicate and produce new bacteria which would then make their own spore. Essentially it's almost a perpetual mechanism to continue their growth. Once an area is infected with anthrax spores it tends to remain infected perpetually.

**DN:** Exactly.

**DM:** Unless it's killed in some way with some toxic chemical.

**DN:** Right.

**DM:** Or sterilized I guess would be the best way.

**DN:** Exactly.

**DM:** I guess most of your work seems to have progressed to the point where or concentrated and focused on the use of anthrax vaccine as being used in the military to protect against this bioterrorism threat. I'm wondering if you can discuss that a little bit.

**DN:** In 1997, the Defense Department announced that it was going to vaccinate everybody in the military for anthrax. And because I was quite familiar with the anthrax literature I knew that there were significant questions about whether the vaccine was effective or safe particularly effective. It wasn't very effective in a lot of animal experiments.

In the mouse and guinea pig model the vaccine was not very effective – less effective than the British vaccine, less than the Russian vaccine and less than the live animal vaccine. We have a very different animal vaccine. I knew that was the case. And in addition, a lot of questions had been raised over the years about whether anthrax vaccine might have contributed to Gulf War soldiers getting sick. That had not been resolved.

So I wrote a very short little paper pointing out some of those things. The Lancet had an article and hot keyed to my little paper which was just for basically an internet mailing list of infectious disease professionals. A lot of people found it because The Lancet cited it. I was contacted by loads of people subsequently who had gotten anthrax vaccine and then got sick. I was also asked by a journal editor to write a review article on anthrax vaccine.

So I did that and then lots and lots of people started getting sick, hundreds and hundreds. Lots of people in the military became interested in fighting this mandatory program for all soldiers and information came out that the FDA had found numerous violations at the plant and most of the vaccine had been quarantined. There were all sorts of problems. So I kind of movement developed in this period about 1999 and 2000 culminating in 13 congressional hearings that dealt with aspects of the anthrax vaccine program.

In 2001, there was a memo going around the Pentagon for consideration of stopping the entire anthrax vaccine program because it had caused more problems for the military than they wanted to deal with at that point.

**DM:** Would the anthrax vaccine be a candidate for one of the causes of what we now look at as Gulf War syndrome?

**DN:** Yes. I believe it is a very viable candidate.

**DM:** Do you believe it's the primary cause or are there other variables? Because there is a variety of vaccines that are given.

**DN:** Right there were many vaccines. There are several papers that showed that the more vaccines you got the more likely you were to develop Gulf War syndrome.

**DM:** Or different types of vaccines or the more doses of a specific vaccine?

**DN:** Actually the more types of vaccines because they only gave one or two doses of anthrax vaccine back then. They didn't have enough. But now even in the anthrax vaccine package insert that an illness which meets the CDC case definition of Gulf War syndrome is one of the adverse reactions to anthrax vaccine.

We know that anthrax vaccine can cause Gulf War syndrome but how many cases it caused and how significant a factor it was remain unclear in terms of the 700,000 soldiers who were exposed to the war in the Gulf back in 1990-1991.

**DM:** With respect to anthrax, what do you believe is the greatest threat to human health from it? Is it the vaccine in the military?

**DN:** The vaccine is a terrible threat. First of all, anthrax has never been used against an army. In the history of the world that we know it's never been used.

**DM:** Not even in the Rhodesian event you described earlier?

**DN:** No. It was actually used in Rhodesia against cattle as a form of what's called low intensity warfare to impoverish the blacks so they couldn't plant their crops.

**DM:** But not against humans.

**DN:** The humans got it secondarily but there were many, many more...

**DM:** But they weren't the primary target.

**DN:** They were not the primary target as best I can determine. The anthrax was used in China by the Japanese during World War II as were a number of other biological warfare agents in field trials then the anthrax letters. So those are the three known deliberate uses of anthrax all against civilians.

**DM:** So it doesn't appear to be a risk or a candidate as highly likely to be used. Yet, it is still the vaccine to prevent against this threat that seems a very low potential is still being administered to the entire military. And the military unlike the general population doesn't have the freedom to opt out of this vaccine because they operate on a different set of laws than civilians do. So maybe you can address that.

**DN:** The military don't have the same civil rights that we do although they are charged with protecting our civil rights. They are operating under the uniform code of military justice and they can be mandated to undergo medical procedures including vaccinations with no ability to opt out. Many soldiers have been court martialled and some have been jailed and many hundreds have been fined a month's pay for refusing to take anthrax vaccine.

**DM:** With respect to the anthrax vaccine wasn't there some controversy or some challenges with the company that produces it because isn't there only one company in the world that does this?

**DN:** Yes.

**DM:** I think they even shutdown their facilities for awhile post 9/11. Maybe you can provide us with more information on that.

**DN:** Before the anthrax vaccine program started in the military, it has begun in March of '98, the army had been doing inspections of the anthrax plant in Michigan which actually had been

part of the Michigan state government and then it was spun off as the Michigan Biologic Products Institute.

The state wanted to shut it down. It wasn't making a lot of money and there were many failures in FDA inspections and the amount money that would be required to bring it up to standard was more than the state wanted to pay. However, it was the army's only supplier of human anthrax vaccine. The army only was using it for research and for small numbers of special ops troops up until '98.

But a plan had been percolating within the military for about 10 years to try and develop vaccines and vaccinate soldiers against all possible known bioterror agents. This could anywhere from 10 to 75 agents. So this was a pie in the sky concept, we will make our soldiers resistant to biological warfare.

**DM:** Super soldiers.

**DN:** Super soldiers. The anthrax vaccine and smallpox vaccine were the two vaccines that were licensed that could be used against biological warfare threats everything else had to be developed. So the military had this concept, we'll ease this whole program in with the anthrax vaccine then we'll bring in smallpox. In the meantime we'll be developing these other vaccines and it will be slick. They didn't want to give up anthrax vaccine because that almost would represent giving up this larger program. So that was one thing pushing it.

Another thing was that the plant was sold off by the State of Michigan for about 18 to 20 million dollars to a group that consisted of managers at the plant and a guy called Fuad El-Hibri and his father who were Lebanese and were friends with Admiral William Crowe.

Admiral Crowe had been the head of the Joint Chiefs of Staff under Clinton, had been a Republican who supported Clinton. He was given a piece for no money down of this company and became the head of the board of directors. His sponsorship somehow assisted in maintaining the military's interest in the vaccine.

The military actually owned the equipment that the vaccine was made on. And when FDA went in finally and did their inspection before the whole big program started at the end of '97, they found that the place was a mess.

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It failed the inspection terribly, everything was wrong. The military decided to raze the plant. They bulldozed it. That part of Michigan Biologic Products that made anthrax was destroyed right before they started vaccinating people. That is 7 million dose inventory at that time but FDA quarantined 5 million doses. So then they only had 2 million doses and they had no plant anymore to make it.

They rebuilt the plant. There continued to be problems even after the plant was rebuilt in '99. The sterility was not good. They couldn't bottle the vaccine properly. A decision was made to

use a company all the way in Washington State possibly because the congressman from that district had been fighting the anthrax vaccine and they got the contract for bottling it. So trucks would take the vaccine from Michigan to Washington and get it bottled. And still the FDA held up approval of the new plant.

So in the summer of 2001, the Pentagon is considering just finally let's get rid of this program, everybody hates it, congress is on our backs, the soldiers hate us for doing this, and a lot of people are getting sick. In that setting, the anthrax letters appeared and all of a sudden it breathe new life into the plant. Tommy Thompson said we are going to get this plant relicensed. They relicensed it and all of a sudden everybody wanted anthrax vaccine and we're still using it.

**DM:** Interesting. Why would the State of Michigan own a vaccine company? It doesn't make any sense.

**DN:** You think it doesn't but in the old days they were not the only state. Massachusetts also had a vaccine plant. Going back ways several states had their own vaccine manufacturing facilities. The idea was to make vaccines for their own children. So this plant actually was making all kinds of different vaccines for children but it was not up to standard.

**DM:** Any reason why it failed the initial test and then even after razing the plant completely and rebuilding it, they continued to fail. Was it just terrible management? They didn't know what they were doing? How could they fail miserably twice?

**DN:** There were problems with management. I suspect that FDA knew it was a bad product and was using failures at the inspections to keep it out of the public.

**DM:** So there are certain people within FDA who really are seeking to use with the full intent for while it was initially created which is to protect the public health.

**DN:** Yes.

**DM:** Unfortunately it has morphed into a different type of agency now but occasionally we see glimpses of it really seeking to fulfill its initial and original mandate.

**DN:** I think that's true.

**DM:** That's encouraging.

**DN:** I think there were a lot of inspections and they failed a bunch of inspections.

**DM:** It is actually encouraging but at the same time surprising but I guess maybe not so because this wasn't really a vaccine that generated large amounts of revenue if you're talking about millions of dollars which is relatively small compared to the tens or hundreds of billions that are generated in some vaccines.

**DN:** Exactly.

**DM:** So there wasn't enough to sort of lubricate the doors of the FDA to facilitate the approvals.

**DN:** In those days when the plant was sold, the vaccine cost between \$2 and \$3 a dose.

**DM:** Interestingly, if I could just provide this small tangent for a perspective. You and I both went to medical school about the same time. When we first got out, I don't know, did you see patients in a practice for yourself of pediatrics...?

**DN:** No. I'm an internist.

**DM:** So if you did and you were actively involved in vaccinating children you'll know about the time that we graduated that it cost less than \$100 to provide the full range of vaccines for a child under 5. Now that price is over \$2200. I think the number have increased from 14 to 49. It's a whole different ballgame with whole different motivations and incentives to continue the process.

**DN:** Exactly. Now it's between \$27 and \$30 a dose.

**DM:** So it went up a factor of 10.

**DN:** Right. Now of course we need it for civilians. We need a stockpile to assure us that were there some more anthrax letters.

**DM:** Is that an official government policy, a determination that in fact that the bioterrorism threat is so significant that they seek to create a stockpile for civilians?

**DN:** I think there are several things playing into that. One is that government officials and politicians are very good at trying to immunize themselves against criticism. Remember that the money they spend is not their own. So whenever there is a problem, the job of congress for instance is throw money at the problem. There are plenty of people who know how to frame a problem so that it winds up helping certain industries.

After the anthrax letters the problem that the army had already identified was framed as a problem – we don't have to worry about bioterrorism from our external enemies, you know, we got to worry about Arab terrorism. Wait a minute, the anthrax letters had somebody really pretend to be a Muslim terrorist but the FBI says it was a scientist in their lab that sent the anthrax letters. What is the evidence that we need to worry about an external source? There really isn't any. There is no more evidence than there was 10 or 20 years ago.

**DM:** My initial question of that or concern, how easy is it for a Muslim or anyone else who is interested in bioterrorism to obtain these anthrax spores and actually create a device that would serve as a threat or a real risk to the population? Is it difficult to do? Do you have to be an insider at one of these labs? How do you grow it?

**DN:** It's easy. I just saw an abstract from a Turkish scientist. He went to an area where animals that die are buried or are put. He got 15 soil samples from that area and five were positive for anthrax. There are places you know. There are farms one can identify where anthrax has come up. And if you get soil samples, you'll get anthrax.

**DM:** So then if you have a sample and you're a decent microbiologist...

**DN:** It's not hard to grow.

**DM:** You can just culture it out and you can create a weapon essentially. It is theoretically potentially easy. It's not some big speculation.

**DN:** The fact that this was used in field trials during World War II – what's that 65-70 years ago – makes it clear that this doesn't require a lot of sophistication. However, if you want to find a strain of anthrax that is much more virulent then you have to be sophisticated and you may need access to these government labs.

**DM:** That would be a weaponized type of anthrax.

**DN:** I guess what I would want to say is all anthrax strains could potentially kill people but some can do it with many fewer spores under other conditions. But the thing is even though it maybe easy to find and easy to grow, it hasn't been used for a number of good reasons. First of all if somebody comes down with anthrax, you know basically that it was deliberate. I mean we don't have anthrax.

**DM:** There is no mistake about that.

**DN:** Here is Chicago there is no anthrax in the soil. If you got anthrax tomorrow somebody did it to you and then we have to look at why that happened so you could identify the perpetrator probably. If I was an enemy and I wanted to take over Chicago and I wanted to spray it from the air, once it gets into the soil it's there forever. So I would never be able to have people populate Chicago. Their pets would die. Their livestock would die. If they inhaled it they might die unpredictably. So goodbye Chicago. Those are reasons why it just doesn't make sense to use it in most situations and why it's been used to rarely.

**DM:** And if one wanted to be practical or pragmatic about the process and cost effective because resources are an issue for some. Usually terrorists are not operating on an unlimited budget so there maybe more cost effective and efficient ways of using a terrorism threat than using something like anthrax.

**DN:** Yes and no. Many people have called biological warfare the poor man's atom bomb. Yes, it's cheaper and less technically demanding to create an anthrax weapon than a nuclear weapon and it's cheaper than a chemical weapon of comparable effect. But still, as I said, there are good reasons why you wouldn't want to use it on most cases.

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**DM:** But it still could be used I guess as a...

**DN:** It's a good terror weapon.

**DM:** If that was the intention was terror – it's like 9/11 the intention was purely terror.

**DN:** Exactly.

**DM:** There weren't any other motive. They weren't on planning on populating New York City.

**DN:** They didn't even want to kill people with the anthrax letters. They taped the edges of the envelopes shut so that spores wouldn't get out except the person or persons, I believe it was persons, who did it didn't realize that the spores were smaller than the pores of the paper. So it got out that way. Inside, the letter said, "This is anthrax. Take penicillin." So the intent was to warn people but to scare the death out of them.

**DM:** Just to address those letters a bit because it's been about 10 years now since those letters were out. You have studied it pretty carefully. Your analysis or impression or conclusion was that the motivation for creating these letters was to validate the use of the vaccine?

**DN:** I can't say that because I don't have a cause-effect connection. But I will say the timing was suspect. Other things could also be attributed to the anthrax letters. The U.S. government wanted to make war in Iraq. We knew that Iraq really had nothing to do with Al Qaeda. But everybody knew Iraq had anthrax. Anthrax letters sort of brought up the specter of Iraq again as our enemy. I think helped the United States more easily wage war there.

A third thing that happened was that the U.S. government was able to designate huge sums of money for biodefense after the letters. Before the letters people were saying, what is the threat? Why do we have to spend money? What is your evidence? After the letters you didn't need any evidence.

The federal government has spent 60 billion dollars since the anthrax letters on biodefense prevention. Not even prevention so much as addressing the threat, drugs, vaccines, research. So not only against anthrax but against many other agents as well. So that's a 60 billion dollar boost to the biodefense industry. It's a lot of money.

**DM:** It is a lot of money. It's certainly a heck a lot more than then \$2 or \$3 dose of anthrax that was initially the cost prior to the escalation of this approach.

**DN:** So before that company was only selling to the army. Well there is only so many people in the army. Now they are selling to the Department of Health and Human Services. There are a hundred times more civilians than there are people in the military.

**DM:** So all soldiers, the current situation that they are required to...

**DN:** All soldiers who deploy...

**DM:** Who deploy overseas...

**DN:** Yes. All soldiers who go to Afghanistan, Iraq, that area or Korea must take anthrax vaccine and smallpox vaccine.

**DM:** There are anthrax stockpiles that are targeted for civilians in case of a bioterrorism threat?

**DN:** Yes.

**DM:** How many of those do we have?

**DN:** The U.S. government had bought 1.4 billion dollars worth of anthrax vaccine from the manufacturer before the last year and just inked a contract for another 45 million doses at 1.25 billion dollars. So a little company that was purchased for about 3.25 million dollars cash plus promissory notes that didn't amount to more than 20 million dollars has now sales worth 2.6 or 2.7 billion dollars.

**DM:** I'm sorry, you probably mentioned it but I don't recall what company purchased this anthrax vaccine company from the State of Michigan?

**DN:** It's gone through a few names. It was called BioPort. Now it's called Emergent BioSolutions. There are other companies that own part of it and lots of different names but basically Emergent BioSolutions is the current name. The vaccine is called BioThrax now.

**DM:** Do you have any information as to what individuals or corporations might be behind that? It seems like someone understood what the whole process was and was able to exponentially increase the demand for this and rake in hundreds of millions of dollars in profit.

**DN:** The main purchaser was Abraham El-Hibri and his son Fuad El-Hibri. They were friends of Admiral Crowe when he was the ambassador to England. The El-Hibri family still owns most of the company but it did go public a couple of years ago.

**DM:** A military connection friends of this admiral who is an ambassador.

**DN:** He was an ambassador. He is deceased now.

**DM:** You mentioned also smallpox. Any military or soldier that is employed in the military to these overseas countries is mandated to get that.

**DN:** Yes.

**DM:** Despite the fact that there hasn't been a case in the world since 1975.

**DN:** Exactly.

**DM:** And it's never been used as a bioterrorism...

**DN:** No. It would be a very dangerous biological weapon because it spreads uncontrollably. So even though you might use it on an enemy, it certainly could come back to get your own people. Were you to vaccinate your own people to prevent against that everybody would become aware that you had vaccinated your people so you would be a suspect.

Smallpox has not been used as best we know offensively whether there is any threat at all. It's unknown but again it was part of this whole program to create these super duper soldiers who were already defended against all the weapons that could be used against them or all the biological weapons.

So the same sort of thing has happened. The program started. It started for civilians in 2003, Americans were getting vaccinated mostly doctors and nurses. After 40,000 people were vaccinated...

**DM:** Were you vaccinated with smallpox?

**DN:** Yeah. For smallpox, there were so many side effects mostly cardiac that the program ended and the Institute of Medicine did a series of reports on it and really panned the vaccine program. Nobody gets smallpox vaccine anymore unless you're actually working with the agent but in the military all that is forgotten under the UCMJ code of law everybody has to get it.

**DM:** Have public health authorities targeted doses of the vaccine in the stockpile somewhere for civilians in case there is a bioterrorism threat also?

**DN:** Yes. The federal government has purchased two kinds of smallpox vaccines. Because it's a live vaccine and it can be very dangerous for people who are immune compromised they have an attenuated smallpox vaccine called MVA and they have a regular smallpox vaccine for everyone else in the stockpile. There has been again probably about a billion dollars certainly well over 500 million dollars spent on that as well.

**DM:** So you have billions of dollars between smallpox and anthrax just stored away for a potential bioterrorism threat. Like most biological products this doesn't last forever. It has a limited shelf life. Maybe you can address what that shelf life is and what the plans are if any for replenishing that supply and continuing to purchase billions more of this mostly likely unnecessary and worthless vaccine.

**DN:** There was a lot of old smallpox vaccine in storage for 25 years or more before 2003. People took it out of storage they found that pretty much it still worked. Even diluting it a little it still worked. Some of the stoppers had failed, some of the doses were no good about 25% but basically it could be used. Smallpox has probably a pretty good shelf life.

Anthrax on the other hand has, I think it's currently three year shelf life. It used to be one or two years once it left manufacturer storage. It's unclear how stable it is but the GAO wrote a report

four years ago saying that the DHHS stockpile was expiring at a rate of 10 million dollars a month. So here you are. If you are the company you'll have this wonderful business plan, business model. Once you sell this huge stockpile to the government it expires over the next three years, you will constantly need to replenish

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And it's only costing you less than a quarter of what you get to produce it. So there is an enormous amount of money left over to do your lobbying, campaign contributions and whatever else is necessary to support the bogus need for the vaccine.

**DM:** And imposing another unnecessary burden upon the public in the form of taxes because someone has to pay for this ultimately.

**DN:** That's right.

**DM:** Usually the responsibility falls back on the taxpayer although the government certainly has the option of printing money which they seem to be fond of doing.

So the Department of Health and Human Services says that they like to investigate the safety concerns of giving the anthrax vaccine to children and the Defense Science Board is getting a pediatric anthrax vaccine trial going. What are the ramifications of giving this pediatric anthrax vaccine especially in light of the fact that physicians involved in the military immunization program note about a 1% to 2% side effect profile.

**DN:** Serious side effect profile.

**DM:** Not just normal side effects like redness or swelling or little pain at the injection site but serious. Maybe you can expand on what that serious vaccine side effect profile consist of?

**DN:** The FDA has a definition of a serious adverse reaction to a vaccine. That is it causes a hospitalization, an ER visit, a permanent disability or death or a life threatening event.

**DM:** That's pretty serious. Significant.

**DN:** Fairly serious. The FDA actually places that designation on the adverse event reports it gets. So for anthrax vaccine there are almost 7000 adverse event reports to the FDA.

**DM:** Is this is a separate data base than the VAERS reporting?

**DN:** No. This is the anthrax VAERS collection. So about 7000 of which FDA has said 757 are serious. So they made the designation 11% of the total were serious. That's important because a lot of people say people are worried about anthrax vaccine. They heard something in the media so they were just reporting red arms. That's not the case. Eleven percent are serious and that's at least as high as the number of serious adverse events for other vaccines. So there is not an excess number of spurious reports.

And the military has said that one to two percent of those people who get vaccinated develop a serious adverse event. So that means it's a pretty seriously bad vaccine.

**DM:** When they say vaccinated they are referring to the anthrax vaccine.

**DN:** Yes, right. Congress was so concerned about the adverse reactions to anthrax vaccine that it told the military that it had to create vaccine healthcare centers that would evaluate people who claimed they got sick after the vaccine, do case management, treat them, write reports on them and study this problem. Four of these vaccine healthcare centers were established in the military.

We don't have them in the civilian world. So the folks that work at these places have evaluated several thousand people who have reported adverse serious – in most cases serious, adverse reactions to anthrax, smallpox, and other vaccines.

**DM:** So all of the vaccines because there are several thousand. There was only 750 reported anthrax serious cases.

**DN:** That's it. That's very interesting right. So not everybody who has gone through the military vaccine healthcare system has had their adverse event reported to FDA. We don't think. That's questionable because the woman who directs it said that they were reporting all the adverse events but some service members have told me that they went through and that their adverse reactions were not reported. So I don't know.

**DM:** There is no incentive or probably no regulatory agency that is monitoring or supervising or auditing the reporting of these because there is no requirement to do so.

**DN:** Exactly.

**DM:** The civilian population I think the estimate is that for every report on the VAERS database there is at least 10 to 100 that aren't reported.

**DN:** Exactly. The other problem is that if it's not in the package insert when the doctor looks this happened to patient x after the vaccine. Could it be from the vaccine? He looks at the package insert and if it's not listed he or she assumes that it wasn't due to the vaccine. So it's very hard to get new adverse reactions identified as being vaccine related.

Anyway, I'm not sure where we were in all this. I think we're talking about the pediatric vaccines.

**DM:** The pediatric component right – the concern or the morals, the policy of recommending a vaccine for kids that has a 1% to 2% serious side effect in adults and exposing that risk to children. It just seems to be unconscionable.

**DN:** It is. It's completely crazy and it's illegal. It can only be done because the Department of Health and Human Services is denying that there are serious adverse reactions. So they have got

their National Biodefense Science Board which by the way has two people who were very important in running the anthrax vaccine program in the military on that board and their job is to protect the good name of the anthrax vaccine.

One is John Grabenstein and he ran the military vaccine program and ran the anthrax vaccine program first. He was instrumental in creating a whole series of scientific studies that were misrepresented and poorly done to try to so-call prove that the vaccine was safe when it wasn't safe. He's a very unethical researcher. He is a pharmacist with a PhD and of course where did he go after he left the military, he went to Merck and works as a so-called scientist in their vaccine division.

**DM:** This is not an unusual pattern. We saw it with the former director of the CDC I believe, Julie Gerberding who after fulfilling her term with the CDC went into industry in Merck...

**DN:** Became the president of Merck Vaccines.

**DM:** The president of Merck Vaccines, the former director of the CDC became the director of one of the largest vaccine companies.

**DN:** Yes.

**DM:** If you just think about it a little bit, about the rationale. It is the revolving door there. How could there not be a connection, this implied connection. There is no law against this conflict of interest. There is just none.

**DN:** Right. There is one year...

**DM:** This is totally legal.

**DN:** She waited 12 months which is what the law required to go to Merck. It's very interesting.

Grabenstein's research even the FDA acknowledged that the military research on the anthrax vaccine was no good. So in the package insert that was developed in 2002, the FDA discusses several different research projects and what the problems were such as lack of control groups and poor research methodologies. And yet those research projects, those papers are still used to support the safety of anthrax vaccine. Merck knew that this guy was unethical, that he was cooking the books on the research and they hired him anyway.

**DM:** I guess it's not too surprising. Let's go back now to the issue of liability because with 1% or 2% serious side effects, if the company producing the vaccine was fully liable for pain, for the legal fees and for the medical fees of this they would probably have a good potential for going out of business.

**DN:** Correct.

**DM:** But in 1985, for childhood vaccines, a law was passed and established that essentially insulated children in the normal vaccine immunization program. We have discussed that before but that really excluded adults.

I'm wondering if you could comment on the process, I believe that happened as a result of this swine flu program that was implemented and is still in effect today and the types of incentives that are setup for companies not to find out what the side effects are.

**DN:** This is a really complicated answer that I'm going to give you. It's going to take a long time. The lawyers really know how to handle the issue liability. You think people in government may not be that talented but the lawyers are very talented. So first off the company that makes...

**DM:** I don't think anyone ever accused them of being inept. It's their morals and ethics that we question. They are very talented people.

**DN:** Certainly talented at getting the liability off manufacturers and off government. Even when anthrax vaccine was made by the State of Michigan, the secretary of the army indemnified the manufacturer.

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That means he said the army is going to be your insurance company. He claimed that rather than have the company pay for insurance that would raise the price of the vaccine. We want to keep the price low, we will be your insurance company and then of course the army is the one that determines what the reactions are, you know, its army doctors who evaluate these people. It's the army that gives out the vaccine. Army was in bed with the manufacturer.

**DM:** I'm not sure that that – I would disagree with that position because like any large company or corporation they self insure. It doesn't make sense to have a third party insurance company because that's really the most efficient way to get to lower the cost.

**DN:** So when it stopped being Michigan – let me just say, two days before the plant was sold to El-Hibri et al, the army signed a new contract to indemnify the plant. So again the sale did not go through until they knew there would be no liability placed on them.

Furthermore, if you're in the military, you can't sue the government. What you have instead is you have VA hospitals and a VA healthcare system. That is what you're entitled to and that is all that you're entitled to in general. You might get a pension but you don't get damages for being injured from medical treatment or anything else that happened to you as part of your military service. That is because of some Supreme Court decisions that are called the Fere's Doctrine. If you're in the military, you can't sue anyway. There is no liability.

Now, what about civilians? The vaccine wasn't being given to civilians but then somebody, the company whoever, decided giving it to civilians would be really nice then we could sell a lot more.

**DM:** Would exponentially increase their profits.

**DN:** Exactly.

**DM:** Because their market just expands exponentially.

**DN:** Right. So in 2008, the PREP Act, the Public Readiness Emergency Preparedness Act was passed by congress in December 30<sup>th</sup> of 2005, signed into law in 2006. This said that if an emergency is declared the manufacturer of a product made to deal with the emergency would be given almost blanket waiver of liability. And so with the doctors administering, the distributors and anybody in the government who had been part of the planning for a vaccine or a drug program, they too would be given liability.

So PREP Act was passed. It was supposed to be for emergencies. On October 1, 2008, Secretary Levitt who was then Secretary of Department of Health and Human Services issued an emergency declaration for anthrax. In consultation with Chertoff who was the Secretary of Homeland Security, they decided that there was a non-negligible risk of anthrax. And therefore they had the right because of the way the law was written to declare an anthrax emergency. What that meant was now the company would have no liability if civilians got sick from the vaccine.

**DM:** Who was covering that liability? Initially, it was the army because it was for the military.

**DN:** Right.

**DM:** Did the army continue covering the liability?

**DN:** The army has continued covering it. Yes. The only people who have gotten the vaccine that I know of that had the ability to sue were merchant marines, who were civilians but were forced to get the vaccine in order to work on ships that were going to the Gulf to supply our military. I know of at least one case that I was an expert witness for where they settled for two million dollars because of injuries he got as a result of the vaccine.

**DM:** So is there a cap on the awards that are given in this (indiscernible 53:56)?

**DN:** So now because of this PREP Act which was issued in 2008 but extends through the end of 2015, anybody who gets anthrax vaccine now cannot sue. The only avenue to get any benefits is if you can get them from the Department of Health and Human Services. There is a small amount of money that congress has designated to be provided to people who become ill or die from anthrax vaccine.

However, you have to prove to DHHS that your illness is due to anthrax vaccine and DHSS is supposed to develop standards for determining what the vaccine might do to see whether or not you have an injury that is caused by the vaccine. But DHHS has made no efforts to develop

those standards so there aren't any. So as far as I know DHHS has not given out any money to anybody. You are prohibited from suing the manufacturer.

If you did win and got some money out of DHHS the maximum amount is about \$300,000 for a death or total disability.

**DM:** Which may seem like a lot of money for some people who haven't had a job for a year or two but if you are suffering to death or a major disability where you need to be cared for in a nursing home for the rest of your life that would go pretty quickly. And that \$300,000 doesn't even include the cost of the legal fees that you would be required and incumbent to pay for to get there to reach that.

**DN:** Exactly.

**DM:** If anyone is involved in a lawsuit before you can realize that those legal fees could easily exceed the award.

**DN:** Exactly. This is a much more restrictive way of dealing with a vaccine injury than any other legislation that came before it.

**DM:** Wasn't there some element of identification of the side effects that was incumbent upon the manufacturer? Maybe this isn't just anthrax where it is the whole adult vaccine issue where the manufacturers are the one that is responsible for determining the side effects yet if they determine it that means they are liable for it. So there is like a negative incentive to do the research. Perhaps you can expand on it because I don't understand it fully.

**DN:** There is a couple of things. First off, we do rely on the manufacturer to tell us what the side effect profile is. If the manufacturer decides not to give us an accurate side effect profile and doesn't collect the data in order to make that determination, we just don't know and nobody else is selecting that data.

**DM:** Or collects the data and decides to throw it away.

**DN:** Right, exactly.

**DM:** Because there is no rule that says they have to put it there.

**DN:** Exactly. And in general FDA has not required post-marketing studies to better define what the adverse event profile is of a drug or a vaccine.

**DM:** So this is true for all vaccines.

**DN:** Exactly.

**DM:** There is no post-marketing requirement.

**DN:** No. Until recently, FDA said they didn't even have the authority under congress to ask companies to do those studies. Now they can ask but they don't always get it answered.

**DM:** They don't have the authority to enforce that request.

**DN:** Yes.

**DM:** The congressional authority to do that.

**DN:** That's a whole other area. There are not very many people in FDA who actually look into adverse reactions to vaccines because all the extra money FDA got from the FDA Modernization Act and the user fees had to go only – was restricted by congress to paying for people to evaluate new drugs. None of that money could deal with evaluating the side effects of the new drugs or the old drugs. So now you've got a fixed number of people with an expanding number of vaccines and drugs and they are responsible for doing more with less in terms of looking for adverse reactions.

**DM:** Especially with the (indiscernible 57:55) way it is and the trend towards reducing funding of the government. They have less funds available to do increased work. It's physically impossible the task before them. They just don't have the resources to do it.

**DN:** Exactly.

**DM:** The end result is we're left with a public who is exposed to these risks and really know public health agency authority that has the resources to guard against the public health.

**DN:** What I would consider these sort of tricky laws were used for anthrax and smallpox and botulism and radiation drugs and vaccines in 2008. In 2009, the new secretary of Health and Human Services directed that swine flu was an emergency and that the same waiver of liability would be now given to the manufacturer of swine flu drugs and vaccines. So all the drugs including Tamiflu and the multiple types of vaccines that were used for swine flu during that first year were given a liability waiver too. Now civilians generally don't know that.

**DM:** Does that liability still persist today?

**DN:** No. It has lapsed for swine flu vaccines.

**DM:** It's interesting because I believe and I certainly could be wrong but I believe they have incorporated swine flu into the regular flu vaccine.

**DN:** They have.

**DM:** So that would have been an interesting workaround to give liability for the adults for that.

**DN:** Yes.

**DM:** But that isn't the case.

**DN:** No. I may not be exactly right. I remember looking this up a couple of years ago but it was my understanding that it lapsed for swine flu. I'm not a hundred percent. But for that first year the liability waiver was definitely present. If somebody developed a serious illness from swine flu vaccine in the U.S. they cannot sue the manufacturer.

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They are forced to go through this DHHS process and we don't even know if anyone has gone through it.

**DM:** Which no one has ever been awarded of.

**DN:** We don't know. Maybe they have quietly awarded somebody.

**DM:** With the normal vaccine injury compensation program if a judgment is awarded there is a provision of that that essentially bans them from sharing it with anyone otherwise they risk losing the entire judgment.

**DN:** Yes. This is a whole new process that in fact they have been working on it. I'm not sure that it's fully established yet what the process will consist of. But in Finland now if you got the swine flu vaccine which contained a GlaxoSmithKline adjuvant called ASO3 you were 12.7 times as likely if you were between the ages of 5 and 20 to develop narcolepsy. So those people now are trying to get compensated through the government in Finland. There are about a dozen other countries looking into increased narcolepsy cases.

In the United States there was one early paper that looked at cases in the U.S. and Canada and found that there were narcolepsy cases in people who got the swine flu vaccine without the adjuvant as well as with the adjuvant. But CDC and nobody else has published anything in the U.S. yet to determine whether there were more narcolepsy cases than expected.

So if you were an American and you had a side effect from swine flu vaccine, I don't know how you would possibly be able to identify it and get compensated because there really isn't any list of what the side effects are.

**DM:** By design.

**DN:** And the vaccine was grandfathered in with a list from an old flu vaccine of adverse reactions that maybe in a relationship to what the adverse reactions actually are.

**DM:** It's interesting. There is a process that some people refer to as problem reaction solution. You create a problem, there is a reaction and you provide the answer. With respect to the vaccines the problem is bioterrorism. The reaction is to create solutions for the bioterrorism threats as they had with these vaccine solutions. I mean that's sort of the solutions, the reaction is fear and the solution is the vaccines. And then it's done for the military and then extended into

the civilian population. I'm wondering if you could comment on that process and your concerns from this even occurring at a greater rate than it has today already.

**DN:** Vaccine companies are very interested in getting new vaccines licensed and on to the market. These are not just vaccines for infectious diseases but vaccines for cancer, vaccines for alcoholism, vaccines for any disease you can imagine.

What's happened is that the government has not put any restrictions what a company can charge for medical products. You have a new drug or vaccine you can charge whatever. As you know new cancer drugs can cost over a hundred thousand dollars a year.

**DM:** That can cost \$40,000-\$50,000 a dose.

**DN:** Exactly.

**DM:** And they need 10 doses.

**DN:** It's amazing. You can charge what you want. If you're dying or if the government is going to buy it from you the market will bear it. It's felt that a whole new area for expanding medical products is vaccines.

**DM:** This is somewhat related to the fact that patents are expiring, it's becoming more difficult to identify novel pharmaceutical compounds that create these niches. So their markets are progressively decreasing so this seems to be an easy way because one of the novel markets was kids. So they have taken their drugs and expanded the range of indications from adults to kids to mess up the children even more like they have with the adults and now this new approach is with the vaccines. That's really their target market isn't it?

**DN:** Right, exactly. This is the area of expansion. So there are actually hundreds of vaccines in clinical trials in development now but the antigens are not immunogenic enough. In other words the antigens that these companies have don't stimulate enough immunity for the vaccines to be made simply as antigen plus aluminum adjuvant etc.

**DM:** Like a conventional infectious disease or model, the traditional ones that there seem to be some benefit at least. That's I'm sure questionable depending on how you evaluate the studies and the historical precedents but at least there is some historical validity for using that approach. Now they are seeking to extend that to these other models.

**DN:** Exactly. And if you're not making a vaccine against an infectious disease – if you have an infectious disease you're trying to develop a vaccine you can provide a live attenuated strain. That usually works to some extent. But if you're making a vaccine against cancer or against osteoarthritis there is no live agent. So you're stuck with proteins, polysaccharides, things like that as your antigens but they don't work very well as antigens.

What works better is if you can add something called a novel adjuvant and there are a number of these that have been developed and are in development. They are felt to be worth. If you have a good one, you know, billions of dollars each.

**DM:** An adjuvant just for those who are not technically familiar with that is something that is added to magnify the immune response.

**DN:** Exactly. So you add one of these new basically not very well tested adjuvants to your polysaccharide or your protein and suddenly you get your immune response that you're looking for. But what's the downside? The downside seems to be that you have more autoimmune reactions.

For example, the Alzheimer's vaccine caused people to die.

**DM:** Quite a significant side effect.

**DN:** Yeah. There are a lot of problems. You made a vaccine against beta amyloid and some of the people died. So that didn't go anywhere. I believe that had an adjuvant.

What the industry has found to be a very effective way of getting questionable products into the market for civilians is to use them first for emergency products. So that if you can make an anthrax or a smallpox or a something else vaccine for bioterrorism using these adjuvants or a vaccine for bird flu or swine flu or something that the public is frightened of and you put the adjuvant into that product you can then get into the back door and start using it in other products as well and get them into licensure much quicker, things that ordinarily wouldn't be able to be licensed. So that seems to be what's going on.

Novel adjuvants were added to the swine flu vaccine in almost every country in the world except the U.S. I think that was in part because I and the others here pointed out. We had documents from the FDA and from CDC that showed that these adjuvants were not necessarily safe. That lots of scientists had concerns about them. The people in FDA had concerns about them and had spoken out publicly and would be embarrassed if they were used. So although the U.S. government bought novel adjuvants, I think 150 million doses for the swine flu in 2009, it wasn't used in the U.S.

**DM:** I think the one you were referring to specifically was squalene.

**DN:** Squalene is part of some of the novel adjuvants. It was part of the Glaxo adjuvant.

**DM:** It was tremendously useful – and other scientists who knew about this concern and risk brought it to the attention but I think probably it would have been squelched if we didn't bring it to the attention of the media or the public. That's what we did in 2009 and really helped catalyzed that then other sites started popping.

We really looked at that as one of our main victories is preventing the introduction of this really dangerous adjuvant into the population. I view it as a huge victory but those types of victories,

you never know. Like if you can prevent an atomic bomb from blowing up you save millions of people's lives potentially but they don't really know because it never blew up. So you don't know the damage and the grief and the human trauma and tragedy that was prevented by introducing this because clearly it's well documented. Even in the countries where it wasn't introduced a lot of pathology and disease had occurred as a result.

It's really a team work. That's what we hope to do with this type of information, is to spread to make the public aware of this and put it in the consciousness so that they can't get away with this stuff. Information is no good unless it's spread around and people understand it.

**DN:** Yes. That's why I'm here. I'm so grateful to you for doing this.

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**DM:** It's a marvelous partnership that we've been able to develop with a lot of experts like yourself to really inform people, to give them the truth. I really think that's one of the major benefits of technology which has always been one of my passions is to utilize that to spread information. It's really been the major workaround, the traditional media which is for the most part owned by a few large corporations and they really got their message pretty solid. It's really sort of in synchrony with the medical industrial complex to support their long term goals and not necessarily public health unless the word is out and people understand and they can't deceive them any longer.

**DN:** Yes, exactly. I think the public should know that these novel adjuvants that are going to be dangerous for some people are in the experimental bird flu vaccines. There are many in government who would like to start using the bird flu vaccine preemptively just in case it might help when bird flu came along. Maybe you would only need a booster dose then, a vaccine that more precisely targets whatever comes up.

I think the public should be aware that in lots of other new vaccines these adjuvants are not really necessary to make the vaccine have an effect. Nobody is going to be telling citizens that these new products are in there.

**DM:** No one in the traditional media or the government certainly would. We're going to be alerting everyone to the concern here because it's a really serious threat. It's not some fantasy and being alarmist. This is a real serious risk of injury.

**DN:** You're absolutely right. I guess what I meant was your doctor won't be telling you because in most cases the doctor won't even know it's there.

**DM:** Even with the current federal legislation there is a mandate for physicians or anyone administering vaccines to warn them and to give them written information from the CDC that they had come up with and this is rarely done. We're actually in the process of exposing this because there is this major liability.

Certainly the vaccine manufacturer is immune from liability but the physician or whoever administering the vaccine, if they don't warn the person and give them full informed consent and they have a reaction or die then there is some liability here. We think that's a workaround that's already in the law that if we can implement and make people aware of this we can really put a serious dent in the whole issue which is really allowing people to understand the full risk that they are exposing themselves and their children to.

**DN:** You probably noticed there are a lot of ads now for pharmacies giving out vaccines and other places.

**DM:** Or if you go to the airport or the grocery store, not even pharmacies but the grocery store. They got little sandwich boards that you walk outside, "Did you remember to get your vaccine?" It's just like gosh.

**DN:** And nobody is warning in those situations.

**DM:** Most people are. I think Walgreens is the major pharmacy chain in the country. I think they do a reasonably decent job but there are others like CVS and some of the certainly smaller chains that are not and they are violating federal legislation. They are not providing the full information that they need to to provide informed consent.

**DN:** The other thing that happens in a vaccine program unlike you going to the doctor and getting a drug is that the person giving you the vaccine in the grocery store doesn't know your medical history, doesn't know anything about reactions you may have had in the past, doesn't know your allergies and doesn't even know what risk group you're in and whether the vaccine is appropriate for you.

**DM:** It's almost as bad as putting fluoride in the water which is a drug. No one would dispute – no expert will deny that fluoride is a drug. You need a prescription for it but yet it's put in the water supply for everyone or for most communities without any individual risk assessment.

**DN:** Yes, exactly.

**DM:** Are there any other pieces of information that you would like to share and educate our viewers with with respect what you have learned over this last two and a half decades in your journey of acquiring information about anthrax and its related components? Pretty much summarizes it then?

**DN:** I think we have done it.

**DM:** Good. Have you compiled any resources that people can go to for more information like a website or a book?

**DN:** I have a website and a blog. I wish blogs were not purely chronologic so they would have no index.

**DM:** But there probably is a search engine on it.

**DN:** Yes there is a search engine on it. That is AnthraxVaccine.blogspot.com. My website is [www.AnthraxVaccine.org](http://www.AnthraxVaccine.org).

**DM:** And there is probably a link to your blog on your website.

**DN:** Yes.

**DM:** So AnthraxVaccine.org.

**DN:** Yes. A lot of information on swine flu vaccine, influenza vaccines, anthrax and smallpox vaccines.

**DM:** Great. Thank you for all you have done, all your work and effort through the years in helping acquire the information so that you can share it with others and allow them to have really the details they need to continue to take control of their health.

**DN:** I just thought of something, one question there was how can citizens actually get the right information? Is there anybody to trust etc? I would say that it's really, really hard to get honest information.

**DM:** Non-prejudiced.

**DN:** The Cochrane Collaboration in England has Tom Jefferson as its head. He is a very honest guy. He was a military physician in the UK. What they have published about vaccines I think is very reliable.

The other thing is I have attempted as much as I can in the time I have outside my day job to cite government publications and cite my sources of data when I write things on the blog or publish papers or even when I give a congressional testimony, I have a lot of footnotes. Because you'll find most people don't do that and I would like people to be able to go back and see what the evidence is for what I'm saying. I would recommend to look for the sources of information when you're trying to sort out whether something is accurate.

**DM:** Sure and if anyone watching this video was interested in what the specific references all they would need to do is cite that basically type in a few words and go to your blog or your website and type it in and they'll find the references for what you mentioned.

**DN:** Thank you.

**DM:** Thank you for compiling that resource. It's great and valuable and people need that because really we're seeking to provide the truth wherever the truth may lead us. Usually when it comes to vaccines and the medical industrial complex it's usually not in favor of the public health. We really need these details to sort through the information and understand it so we can make some informed choices.

Thank you again.

**DN:** Thank you.

**DM:** I appreciate you coming in.