

Scientists, the Food Industry, and Heart Health: An Interview with Dr. Jeremiah Stamler

Dr. Jeremiah Stamler is one of the founders of preventive cardiology, a speciality that focuses on preventing heart disease.. He is now professor emeritus and was founding chairman of the department of preventive medicine at Northwestern University's medical school in Chicago. He has published more than a thousand articles, monographs and reports and now in his mid-80s, he continues to write, publish, and advise younger researchers around the world. During his career, he has had numerous encounters with the food industry and government agencies concerning the policy implications of his research. In Fall 2006, Corporation and Health Watch founder Nicholas Freudenberg interviewed Stamler in New York City and Sag Harbor, New York. Here we present excerpts of Dr. Stamler's descriptions of some of his interactions with the food industry and government as well as his advice for young scientists.

CHW: Dr. Stamler, tell me how your research on heart disease first brought you into contact with industry groups.

STAMLER: As you know, I am a cardiovascular researcher primarily focused on atherosclerotic disease as it affected the coronary arteries. I began as an animal experimentalist, got interested in that in medical school, and spent my first ten years focused on animal experimental work, although I soon branched out into clinical trials and epidemiological issues. Early on I became convinced that the animal experimental knowledge was applicable not just to individual men and women, but to whole populations. It became clear to me that the growing epidemic of cardiovascular and, particularly, coronary heart disease, including sudden death, was related to lifestyle.

From the start, we found ourselves involved in hassles with industry. I had one limited personal encounter — an interesting experience. I got a grant from the National Dairy Council, a one year grant, for experiments on feeding cholesterol to chickens. A knowledgeable and decent colleague was the Scientific Director of the Dairy Council, and we dealt with her. We got that grant with the usual rules, which I had learned from my chief, Louis Katz, the Director of Cardiovascular Research at Michael Reese Hospital in Chicago. Dr Katz taught me that if you take money from an industry or an agency related to an industry, the ground rules have got to be very clear.

CHW: And what were Dr. Katz's rules?

STAMLER: Rule Number 1. The protocol is our responsibility. We're pleased to show it to you (the funder), but we will not modify it at your request unless we agree the modifications are useful.

Rule Number 2. We make the decision as to the duration of the study. There are no restrictions on the duration of the study. If we think at the end of a given period, spelled out in the protocol, we need to do further work, repeating or modifying or extending the given study, we extend it. You can give us money, enough to support six months, or a year, or whatever; but if we find that we are not well off at that point and we think more work should be done, it's our right to continue to do so.

Rule Number 3. With regard to publication, we elect to publish or not to publish. If we do not publish, we will give the data to you for your confidential information. It can not be used in the public arena. If we do publish, we will show you copies of the manuscript, but we have complete control of the manuscript.

And Rule 4. Any money you give us is an unrestricted gift. There are no strings whatsoever, even if it may be for a very specific piece of research. It comes as a check for all, so to speak, a deposit in the bank, and that's it. We use it as we wish. No strings attached. Those are very good rules. Many young people don't even know about such rules, when they get involved with drug companies.

CHW: Tell me more about what happened with the Dairy Council.

STAMLER: Well, The Dairy Council agreed to these terms and we got a grant. It was a modest sum, \$10,000 for one year. In the middle of the grant year, I got a call from the Scientific Director at the Council.

"Jerry, I'd like you to help us with something," she said.

"Anything, I can do to help. Tell me what you want." I replied.

"We'd like you to testify."

"Where would you like me to testify?"

"State Legislature."

I said "Well, what would you like me to testify about?"

"Margarine."

"What about margarine?"

"Coloring of margarine."

I said, "Oh, you're in favor of it." (Which I knew, of course, was not the case.) [The Dairy Council opposed coloring of margarine that made it look more like butter.]

There was a pause on the other end, and she said "No, we're against it."

I said to her, "Look, they say every man has his price. Far be it for me to be Jesus, Moses, Mohammed, Sir Gallahad, Sir Lancelot — maybe I've got a price, too. Maybe if you said a one million dollar deposit in a numbered account in Switzerland, I might think twice. But for one miserable \$10,000 grant for which I get nothing in my personal pocket, no way." The next year I didn't get renewed.

CHW: Tell me about some of your interactions with government agencies on these questions.

STAMLER: Norman Jolliffe was a distinguished national and international nutritionist who was the Director of the Nutrition Bureau at the New York City Department of Health from 1949 to 1961. As a good public health officer, Norman wrote letters to the Food and Drug Administration, which a number of us co-signed, expressing profound concern with the failure of the FDA to do anything about what came to be known as the diet-heart question. He requested that the FDA go officially on record supporting diets lower in saturated fats and cholesterol, as part of healthy nutrition. You have to understand that prior to the USDA/DHHS dietary guidelines there were only nutritional recommendations for health, focusing mainly on under-nutrition. Also, one of the problems was that the dairy industry had a — what is the wrestling term? — a grip lock on nutritional recommendations. The dairy industry, through the National Dairy Council, was the dominant source of nutrition information in elementary schools, high schools, colleges, and rural areas.

Well, the FDA never replied to any of Jolliffe's letters. No replies at all. None. But finally one day Norman was at FDA headquarters, and he saw the Commissioner of the FDA and said, "Look, what's going on? We write you letters. You don't reply. You don't say no, you don't say yes, you don't say anything. You file it, get rid of it. What's the problem?"

The guy says, "Look, Jolliffe, you get meat, egg, and dairy off my back and I'll reply." Just that simple. And for years, the National Heart, Lung, and Blood Institute also avoided making a statement on diet and heart disease for similar reasons. In 1960, the American Heart Association issued its first statement on diet. I was a co-author. We went through seven revisions of a very careful statement on the possibility of preventing coronary disease. It was the first American Heart statement. A year or two before, there was a statement on risk factors for heart disease that Mary Lasker helped to publish through the National Health Education Committee, a private group. But the NIH Heart Institute was silent. The Public Health Service, FDA — for years — silent. Bob Levy, then Director of the National Heart, Lung, and Blood Institute, once had a Congressional staff person say to him, "You organize the Heart Institute to go on record on the diet-heart question, and we'll cut the balls off your budget." Simple.

CHW: Let's turn to salt. [The American Medical Association estimates that 150,000 lives could be saved annually if sodium levels in packaged and restaurant foods were cut in half.](#) I understand you spent many decades studying the impact of salt on cardiovascular health. Tell me something about your interactions with [Campbell's Soups](#) and with [the Salt Institute](#), the industry trade group, on this issue.

STAMLER: Well, in the late 1980s, Campbell's presented soups on the shelves called "Heart Healthy" on the basis that they were low in fat. But as you know by looking at any label of usual Campbell soups, they were then and they are today (except for a few "salt-modified" or "low-salt" products), very high in salt. So people who were concerned with salt and heart health said "How can you make a claim for heart healthiness when you have a soup that's so loaded with salt?"

So several advocacy groups went to the Federal Trade Commission and said that this was false and misleading advertising and should be stopped. In January 1989, the Federal Trade

Commission cited Campbell's for making misleading health claims and temporarily enjoined Campbell's from making such claims, pending a hearing.

CHW: How did the Federal Trade Commission get to you?

STAMLER: A young FTC lawyer came to me and said the Commissioners are saying, "What are the data that refute the argument that salt sensitivity is a minority phenomenon prevalent only among some hypertensives, not a population wide phenomena? Will you come and talk to the Commissioners?" she asked. Before the FTC lawyers could go into the courtroom to get an injunction, they needed approval from the Commissioners. And I went and delivered a talk and then the lawyers got permission to go ahead.

In the court proceeding, I was asked to be an expert witness for the Federal Trade Commission on the question, "Is salt really a public health concern?" The argument repeatedly used by food processors whose products have a lot of salt and the salt industry is "No. If salt relates at all to blood pressure, first of all it's one of many variables; second, it relates only to people who have high blood pressure, and, third, it relates only to a proportion of them who are 'salt-sensitive'. Therefore, it is a clinical issue, not a public health issue. There is no reason to say that a soup that claims heart healthiness because of its low fat content can't make that claim because of public health concern with salt." By the way, these same syllogisms were used in the past by the food industry special interests that defended high fat food, until they finally more or less gave up on the fat question.

CHW: So what happened at the FTC hearing?

STAMLER: FTC proceedings allow a period of discovery so I was deposed by a distinguished, able, straightforward, calm, businesslike Washington attorney. In a day and a half or two of detailed depositions, his main objective was to try to undermine my scientific foundation for the statement that the problem with the so called salt sensitivity response of the blood pressure to dietary salt is not idiosyncratic, not only a clinical problem ; and does not affect only a small percent of population. Rather, we argued it's fundamentally a population-wide issue

Our [Intersalt Study](#) has shown that it is a problem throughout the population with, at most, only a small percent of people escaping the consequences with no rise in blood pressure with age. In that study, we found a consistent relationship between salt and blood pressure and concluded that high salt intake is a major preventable risk factor for epidemic cardiovascular disease.

CHW: When you were being questioned by this lawyer, did he know the science? Was he up on the science?

STAMLER: Oh, yes, he was very well prepared to represent his client. But I and my colleagues who were expert witnesses for the Government held our own. It wasn't readily possible to shake the foundation of our conclusions. This, of course, is supported by the fact that such conclusions have been stated, and restated time and again by independent research groups.

CHW: So what happened next?

STAMLER: Soon after the depositions, Campbell's Soups threw in the towel and dropped their objection to the FTC finding. I'm sure one of the reasons was that the legal action was costing a fortune. You can imagine what a good Washington law firm was costing them. Even for a relatively rich corporation, they are in the food industry where profit margins are not like in the drug industry.

CHW: Did Campbell's change their products?

STAMLER: Well, they began to put out more soups that were modified salt, but most of these are still too high. There are three levels with Campbell's Soup and salt. The first is the usual, which is almost like drinking sea water. The second is a modified version, which is somewhat lower but still too high in salt content. And then there are a few low salt, or really low salt soups. Their problem is that many people are attuned to soups that are high in salt, and there is no good salt substitute that gives the equivalent flavor. They've been wrestling with trying to get a substitute; they used potassium, they used other things, but it has been very hard. There are ways you can make soup that's very tasty without salt. We know a wonderful cook who makes lentil soup for us, and we make tomato soups. Tomato's a good way to go for taste without salt.

CHW: So what's happening now on salt?

STAMLER: A new committee created through the Department of Agriculture and the Department of Health and Human Services is reviewing the dietary guidelines for Americans, one of the seven being on salt. The Salt Institute launches a big campaign to get rid of that one, and intensified its harassments and its objections and its criticisms of the latest scientific work on salt. But nonetheless, repeatedly that body has reiterated the salt recommendation. Recently, the [World Health Organization had a huge conference in Paris reviewing the whole situation](#), its purpose being not to review the facts but, taking the facts as given, what can be done to reduce the population's intake in salt. In addition, the American Medical Association joined the effort to reduce salt in processed food and the new USDA/DHHS guidelines reiterated the importance of reducing salt.

CHW: Even though you are a prominent scientist with a long track record of scientific publications, you have never hesitated to step into the policy arena or to take on the special interests that defend health damaging policies. What kind of advice can you give young researchers who want to look at the relationship between the food industry and patterns of illness? What advice would you give for how to study those things or for how to frame the questions in the context of the current biomedical framework?

STAMLER: Well, first of all, unfortunately, too few people have an interest of that kind. There is still prevalent in the scientific community a rejection of what I call the classic Baconian creed on what science is all about. You know, Bacon helped to create the foundations of modern scientific approaches, and struggled against scholasticism — medieval, church-based scholasticism of the kind of "How many angels are dancing on the head of the pin?" His idea was that the task of scientists is to collect information for human welfare, to improve the lot of mankind. And that became the creed of science. To this day there are big hassles in our country

on the conflict between basic and applied research. Influenced by Bacon, Pasteur formulated the simple concept "There is no such thing as basic and applied science. There is only science and its application." Very simple. Very clear. But to this day, throughout the scientific community in America, the good science, the real science, the quality science is still considered basic science.

But how do you define basic science? Do you mean you work at a bench? Do you mean you work on the sub cellular level, the cellular level, the tissue level, the organ level? Is it a level? Is it a place of work? Is it a scientific tool? What's basic research? When Einstein formulated his famous equation, that was pretty basic research, and when it was made into a bomb, that was a pretty definitive application. Similarly with Fleming and penicillin. So what's the dialectic there?

CHW: So bring this back to your advice to young scientists.

STAMLER: Yes, let me go back to your question — that was a long diversion. My fundamental viewpoint is that everything having to do with medicine, at every level has to do with a practical, applied branch of human life. Therefore, everybody working in medicine must ask himself/herself the question: "What are the possible applications?" And in fact, when you write a research grant you have to put it in. That's kind of ironic. There's no such thing as a research grant — at least not for the National Institutes of Health — where the researcher can say, "I'm doing basic research. I don't have even a remote idea—a hypothesis-- about the application." By the way, the only real definition of basic research is, research whose application is not currently apparent.

So every scientist working in medical research, wherever, has to be conscious of possible applications. Any scientist who has any application that is in the public health arena at all, and nowadays that covers anything related to treatment because all treatment relates to pharmaceutical and other industries. So as soon as you get to treatment, you're up to your eyeballs in commercial interests. Therefore, you have to be aware that what you are working on not only may have applications, but may relate to special interests that have an axe to grind in relation to those applications. Sometimes a very nasty axe of downright vicious opposition. C. E. Winslow, the great public health leader of the early twentieth century, said all progress in public health in the United States is going to be very difficult from now on because every step proposed will be in conflict with special interests. So every scientist must be aware of this. And every scientist who is worth his weight in anything should be prepared to struggle for the integrity of the application, of the sound knowledge that he collects. He or she cannot be indifferent.

Now, this business of indifference is a whole ideology: "I'm a scientist. I collect the data. I make them available to the policy makers to do with it what they see fit. What is done with these data is not my responsibility." That's a whole ideology. Some researchers say "Well, I've got to remain objective. If I espouse a cause, I become committed and, therefore, biased." That's not true. To espouse the truth is not biased. To fail to espouse the truth is to betray the Baconian tradition.

CHW: So what are the implications for training scientists?

STAMLER: Well, I have certain ideas. If you're going to espouse the proper application of your findings and other findings, then you have to do it skillfully, carefully, not just a gesture. And that means first and foremost, you have to work with organizations. So if you're in the cardiovascular field you have to be active in the Heart Association, if you're concerned with public health, the American Public Health Association. You may even be active in electoral politics at one level or another, you have to respond with articles on policy, not just articles on your scientific findings, etc. Do it well. Do it well. Don't just give it a lick, a promise, a gesture.

And the final thing is, of course, you cannot allow yourself to be intimidated by special interests who deliberately try to intimidate you. I've had my experience with the salt industry and others as well. I received a letter from The Salt Institute's lawyers challenging our data and demanding the whole data file so that further and "proper" analyses could be done. That could be very intimidating, you know.

In fact, many people prefer not to get involved in the public arena because they don't want all those hassles, including the time it consumes. It consumes a lot of time. So I think good preceptors need to make all young scientists aware of this set of issues. What is the right tradition of science? Does advocacy mean loss of objectivity? Advocacy for valid, true, clearly established, sound data –so defined by the scientific community? What does that signify? Is such advocacy bias that reflects loss of objectivity? Is commitment biased? Is that a valid line of thinking? Unfortunately, many young scientists are never confronted with these issues.