

The Nobel fakery of Linus Pauling

The following interview with Dr. Arthur Robinson was conducted by Dr. John Grauerholz. Its subject is "Mr. Vitamin C," Dr. Linus Pauling, a winner of two Nobel prizes, one for chemistry, the other a Nobel Peace Prize. Dr. Robinson, who worked with the celebrated Pauling for years, is now head of the Oregon Institute of Medical Science, and a board member of the journal, *Mechanisms of Aging and Development*.

Linus Pauling is a "population-control" advocate, a member of the Pugwash movement, the principal instrument of Soviet world imperial ambitions since 1957, and an activist with the Union of Concerned Scientists (UCS) who frequently speaks at UCS "nuclear freeze" events. He is not only venal, corrupt, and anti-scientific in both research work and ideology—as Dr. Robinson documents his personal experience with the man. [sic] As his observations also strongly suggest, Pauling's corruption stems from his "political elitism." Linus Pauling is an oligarchist, who equates human beings beneath his own station with cattle. To "relieve human suffering," he is not at all adverse to genocide.

Grauerholz: You worked with Linus Pauling for how long?

Robinson: I took freshman chemistry from him, in 1959. I did research with him from 1962 to 1963, and then from 1968 to 1978, I published 10 or 15 papers with him.

Grauerholz: You had certain political disagreements with Linus Pauling?

Robinson: Yes, we had markedly different political views. I had a pretty strong interest in human freedom and sort of a libertarian outlook, although I wouldn't paint it with any particular party; Pauling is more elitist in tendencies. He has properly described himself as a worker for international socialism; those are *his* words. He tends to support leftist causes and is usually quick to criticize the United States and slow to criticize the Soviets and the Communist Chinese, whom he admires; so it's a pretty wide difference. I never paid attention to it—that is, I paid attention to it, but I felt the health research we were doing was apolitical. Unfortunately, I don't think that's quite the case.

It has to do with the way you handle people and the way you do things. Your political views spill over to the way you act. And particularly the argument that developed in 1978, where Pauling seemed to feel above the results of our research and above personal ethics. The way he acted was, I'd say, consistent with his political outlook and different

from mine. It also isn't clear to what degree politics may have played a role in his attack on me. I had just given a speech—the first political speech in my life—in San Francisco which was heavily laden with free enterprise. Virtually instantaneously Pauling went after me in the way which led to the lawsuit. I believe there was a strong political component in his decision to attack me and my research, but I can't prove that.

Grauerholz: You said that he "felt that he was above the research." What specifically happened?

Robinson: Well, in 1978, Pauling marched in one day and demanded that I resign from every position that I held there and that I turn over all of my research to him—including research that he'd had nothing to do with but that my co-workers and I had been carrying on for 10 to 15 years—and all of my equipment and data and everything else, and walk out of the building. At that time I was president and director of the institute, a trustee and co-founder, and a tenured research professor. That was his demand, and he backed it up with one threat: He said he had things on me which would destroy my career in science if he revealed them, if I didn't do exactly as he told me. Of course, I refused. I demanded to know what these things were. He said he couldn't reveal them.

Then, Pauling, over a period of months, used his influence with his son and some cronies on the board of trustees to gradually fire me from those jobs. Pauling was given the presidency of the institute, and he proceeded to lock up all of my data, to impound all of my research work and equipment, and to start to publish statements abroad that I was incompetent and a poor researcher and had been fired for all sorts of things, which he implied sometimes were financial misdealing, and sometimes were bad research, and sometimes were insubordination, he gave all kinds of accounts.

Most important to me was to get my research back, and failing after some time and efforts, I sued him. Someone took data out of my office, my personal files were locked up and impounded, even my research books going back to my graduate career were taken. Then Pauling used the research funds for the institute to hire attorneys in San Francisco—we don't know how much they were paid although in a single year they were paid a quarter of a million dollars, and it looks like he had a legal bill of about a million when he finished. They used every kind of trick imaginable in an effort to keep this lawsuit out of court for almost five years, but finally a trial date was set. In

discovery, and in depositions, it was proved that Pauling had nothing on us.

He absolutely didn't want to go to trial. They paid us \$575,000--\$425,000 for libel and slander, \$50,000 for breach of contract and incursion, \$100,000 for legal fees.

Grauerholz: What was the name of the institute?

Robinson: The institute we founded was called the Institute of Orthomolecular Medicine. After it started to become successful, Linus Pauling, Jr., who was a trustee, proposed that we change the name to honor his father. I thought that was a fine idea, I supported it.

My students and I, in the course of our work on aging, had developed a collection of about 60 unique peptides which we had collected over the years, and most of the things that I used on the work with deamidation with peptides were unique substances that had to be synthesized in the laboratory, and were accumulated through several graduate theses and years of work by technicians and a lot of work by myself. One of Pauling's people, with his knowledge went in and destroyed this entire collection of substances. I guess they thought that was a clever way to put pressure on me.

One of the reasons Pauling went after me was the experiments that I'd done on mice. An investigative reporter from *Barron's* got wind of this problem and spent about three weeks interviewing everybody, looking at all the possible reasons. He wrote a feature article in *Barron's* entitled "Of Mice and Men," in which he emphasized the fact that I had done research on mice which indicated that a moderate dose of Vitamin C increased the incidence of cancer, but that another diet, entirely different than the one Pauling pushed on talk shows, was far more effective in suppressing cancer, and these experiments were being completed at that time. When Pauling "got" me, he got the data and suppressed it. I don't think that's the whole reason; I think there were several. The institute had not had too much money during its first few years. In the year before he went after me, we had finally become a financial success, and there was \$2 or \$3 million a year now to utilize. It was clear that Pauling wanted to spend the money on himself. I got the trustees to vote that 50 cents out of every dollar would be given to him to do anything he wanted, and that the other 50 cents would be used to build the institute. But it was a lot of money, and if I wasn't there, it could *all* be used for his purposes.

Grauerholz: You say you had evidence that Vitamin C actually increased the incidence of cancer?

Robinson: We were doing dose-response curves on the relation of Vitamin C and cancer.

In the case of nutrition and cancer in mice, he and I, on the basis of a recommendation of a third party, jointly decided that we would make a mouse colony and start changing the diet of the mice and seeing the effect on development of

cancer. The system we used was developed by Homer Black in Houston. It's a system where you take mice that have no hair, irradiate them with ultraviolet (UV) light and induce squamous cell carcinoma in the skin, which is identical to the human disease, and induced in the same way. You can study it easily because you can watch the incidence and the severity of the tumors, how many there are, and watch them grow, without sacrificing mice. So, I set up a colony like this and started to do some experiments of my own and some that Pauling and I together had worked on: basically dose-response curves for different vitamins.

The bottom line after three years of research was as follows: When you give mice the equivalent of the 5 or 10 grams a day of Vitamin C that Pauling recommends for people, *it about doubled the cancer rate*. If you give them massive multiple vitamins, it does, too. As you go up in dose range, you near the lethal dose. And just under the lethal dose of Vitamin C, there starts to be a suppression of cancer. Then I became interested in a raw fruits and vegetables diet for the mice. That was very effective against cancer, it was remarkable.

In sum, while a health-food diet just involving natural foods suppressed the cancer markedly, Vitamin C was enhancing it at low doses and only suppressing it when you got near the lethal dose, so much that you couldn't possibly give that kind of dosage to humans. I developed a hypothesis, which I talked to him about, in which I said that I felt that since mice make their own Vitamin C, it might have confused their Vitamin C control mechanism. It didn't necessarily follow that people would get cancer from taking Vitamin C because the mice did.

Pauling went after me when I was on the edge of publication. Pauling immediately declared that all the work had been his, but when the press asked him about it he said, oh, I had done it all, and it was amateurish, and he suppressed it. He then tried to do his own experiments, and for some reason I think overdosed his mice on Vitamin A. The animals all died in the following year. He also grabbed my animals and had them killed off.

But 19 months later, after Pauling had said--and this had been published--that my work had been too amateurish to even consider, he wrote me a letter enclosing a manuscript by "Pauling, Robinson," and two or three others, inviting me to be an author of his paper! This was a year after the suit. The paper described nothing except my work. Except, there were some differences: The data had been massaged in such a way that the low doses enhancing cancer didn't show up; the suppression of cancer at high doses was prominently displayed--without mentioning that the doses were almost lethal!

And then there was a capper: The final paragraph of the paper said that the results on the high doses of vitamin C were so good, that it was clear that if we *doubled* the dose--

and he gave the dose--it would provide essentially *complete* protection against skin cancer in mice! Well, Pauling didn't do the work, so maybe he wasn't aware of the fact that the double dose was absolutely lethal and none of the mice had lived.

He submitted this thing to the Proceedings of the National Academy. And I, of course, raised hell--I said, first, your paper is lousy; second, it's my work, you have no right to publish it; and third, you've been calling this work amateurish and unpublishable for a year and half. What's going on? Well, his response to that was just to take my name off the paper and submit it under his own name to the National Academy. And I objected, and a couple of people I know who are members went and objected, and he was forced to withdraw the paper. Later, he published the Vitamin C parts of it in a Brazilian symposium and sent it to all his donors, saying this was a great discovery about cancer.

Since then, some other things have come up which I think are pretty serious. A man at the institute had been working on a property of Vitamin C. If you dissolve it in water, or buffered solution, under aerobic conditions, it's oxidized rapidly, and the breakdown products are collections of free radicals of peroxide, which is pretty corrosive. The upshot is that if you dissolve Vitamin C in a buffered solution of some pure protein, it breaks peptide bonds, and initially, ammonium pours off the solution; if you look at it after a few hours, there's nothing but pieces, and lots of them; the transferon had broken into a dozen pieces. The ring chains are damaged. We went back in the literature and came to the conclusion that aerobic Vitamin C solutions wipe out the outside chains of the rings of DNA--the same thing they did to protein. I suggested that this might be the reason that it has anti-viral effects. If you were to pour Vitamin C on a culture of viruses, it would do the same thing to their protein coats.

So it appears that increasingly that Vitamin C is mutagenic in large amounts in aerobic solutions, and it's not at all clear that you don't increase the chances or the risk of cancer if you pour 10 to 20 grams a day into people's stomachs and intestines for years.

Grauerholz: So basically, your data would have provided some substantial embarrassment to his big Vitamin C caper?

Robinson: Oh, there's no question about it. I wasn't anticipating any attack from him at all. I felt that, first it was mice and not men; I didn't think that it meant that everybody had to stop taking Vitamin C. But Pauling wasn't doing research on Vitamin C. In fact, I don't think that he's ever published a paper on an original discovery on the subject. He was doing mostly politicking, which was in articles, talk shows, and so forth; and in that world, for the people opposed to him, something like this, I suppose,

could be a political weapon. But you can't just suppress research findings because they might be embarrassing.

There was another instance which I tolerated and I probably shouldn't have. The man who worked on the oxidation of Vitamin C was named Steve Rickheimer, a graduate student. Pauling hadn't wanted to bother with him, but we were short of money and Rickheimer wanted to work, so I gave him a problem in the lab. He worked on a couple of things, in particular, the oxidation of Vitamin C. He did a good job, and after about a year, he had a full qualitative understanding of what was going on in those solutions. It was time to repeat all his reactions under very careful, quantitative conditions so that they could be published in a reputable journal.

To Pauling, however, this was potentially embarrassing because Vitamin C was proving corrosive to macromolecules. Pauling was clever. He told Rickheimer, "Steve, I think you're doing so well you should have your Ph.D. right now!" I went through the roof. I said, "this is insane!" The guy's doing a good job, but if he doesn't do this over right, he won't even be able to publish it! And Pauling said, that's absolutely not right, he's done a fine job, he should have his Ph.D. I couldn't win. Pauling took him and had him write up his thesis; Pauling got right into it--he had ignored him up until that time--and helped him write it, took it to the committee at Stanford, and they apparently went into orbit like I had. But Pauling came back from the thesis defense chortling about how the committee had said he shouldn't have his degree, but he had pushed it through and prevailed.

So, Rickheimer got his degree. But when he came back to see Pauling, Pauling wanted nothing to do with him, wouldn't put his name on the paper, wouldn't help him publish it, wouldn't help him write a post-doctoral dissertation. He was out in the cold. The upshot was that the work was not completed. Rickheimer tried to publish it in a reputable journal and couldn't; he drifted.

There is a third thing about Vitamin C, which is what irks me the most: Reasonable doses might have some marginal beneficial effect on degenerative diseases in general, and maybe a little bit on cancer. Vitamin C is sure no cure for cancer, but it might be that every cancer victim should take some. But Pauling, of course, couldn't get publicity with that, although it would be very important. So what he's done is gradually escalate his claims, as best embodied in his quote which I saw in *Prevention* magazine. He says that "75% of all cancer can be prevented and cured by Vitamin C alone." There's not a shred of evidence; from those experiments that are complete, it's just not true. But it generates press. And what it has done is to focus the debate on whether Vitamin C is a cure for cancer or not. The Mayo clinic goes out and does a study, to prove Pauling wrong--and that's easy. Vitamin C doesn't cure cancer. Everybody fights over whether it's a cure for cancer

or not. Pauling gets a lot press, and the possibility that it has a *marginal* effect is not even tested. The benefit that it *might have* for cancer victims--if in fact it has any value at all--is lost in this political mish-mash. I think that's the biggest harm. The studies that are done are focused upon a non-problem. When they prove that it doesn't cure cancer, they say, "Ah, you see that Vitamin C is no good." Whereas, we might find that there'd be a marginal benefit for cancer victims, and if there were, we're losing it because of all this posturing and attempts to grab publicity through wild statements.

Grauerholz: Does he push other things besides Vitamin C?

Robinson: Principally that, because he's made that his horse. He started out in Vitamin C. In 1968, when we started working together at the University of California, he read a couple of books by an author in Canada. Pauling then wrote an article which he entitled "Orthomolecular Psychiatry" in *Science* magazine. I remember because I helped write the article. He stated that he thought that biological variation could be such that some people might need very high doses, and that there are vitamin needs that some people have and others don't. This was the way in which he entered the subject. Then, a guy named Irwin Stone talked to him about Vitamin C. He started taking it, and started talking about Vitamin C and the common cold. Of course that wasn't new -- there had been about 15 experiments done -- but what he said was that the experimenters had misinterpreted their own data and that Vitamin C suppressed the common cold. I proposed doing experiments on it. He didn't think that was necessary: Everybody knew what he thought about it!

Then after a few years, his emphasis shifted to Vitamin C and mental illness, and he talked about how substantial its effects could be on that. And then Cameron did an experiment in which he gave 10 grams of Vitamin C a day to 150 terminal cancer patients. The reported result was an increase in life expectancy of a few weeks and a decrease in patient suffering. Cameron sent his paper to Pauling. Pauling became very excited and re-wrote the paper, corresponded madly with Cameron, and the paper came out by Cameron and Pauling.

From then on, Pauling was on the Vitamin C and cancer bandwagon. He talked about it so much, and has attained such recognition, that now the natural public view is that Pauling is the great scientist who did wonderful things about Vitamin C. There isn't any research work; there's just this publicity. He does not do research work. It's gotten so bad, that I remember a lady wrote to me once saying that we should sue this guy Albert Szent-Gyorgi because he was going around claiming that he had discovered Vitamin C, and everybody *knew* that Dr. Pauling had done that! Well, I think Szent-Gyorgi got the Nobel Prize for discovering Vitamin C.

I think we're now doing a vast experiment on the people taking 10 grams a day of Vitamin C a day, and I don't think the results are going to be very pretty. I think it's going to be harmful.

Pauling himself has a personal tragedy. When he first went on the stump, he got the biggest applause by talking about himself and his wife. He would say, "You know, my wife and I started taking Vitamin C and we never get colds anymore; we've done the experiment on ourselves." It was a good talking point. And at that time, he put himself and his wife on at least 10 grams a day of Vitamin C, and they were on it for the next decade. He wife contracted stomach cancer and died. I pointed out that she was bathing her stomach with an enormous amount of mutagenic material for 10 years. I don't know if that's why she got it; there are no statistics there either; but that's the sort of thing I would worry about in the long term effect.

My own personal opinion is that people like Pauling gravitate toward elitist philosophies because they think the world would be better off if they were running things. We have a fundamental philosophic difference, which shows up in the articles of incorporation I wrote for that institute. Pauling was always talking about doing something for *the decrease of human suffering*; and I was always talking about *increasing the quality of human life*. You could decrease human suffering to zero, just by killing everybody! I used to tell him that his boundary conditions were lousy.

The communists, for example, have their philosophy. They killed tens of millions of Russians because they thought it was going to decrease human suffering! If you take all of the people living under a system, then you can't run around with these genocidal policies because when you kill someone, you completely eliminate the quality of their life. Whereas if you emphasized a decrease in human suffering, you could cry crocodile tears all over the world and espouse political philosophies which consider more the theoretical ends than the genocidal means. This is a sharp difference, the more you think about it.

I'm shocked -- not only by Pauling, but by other scientists I see who are developing a very elitist view of the world. They are just basically making gods of themselves, with the power to manipulate others.