

POLLUTANTS + PEOPLE=CANCER

The equation is simple. insists toxicologist Samuel Epstein: Chemicals — more than diet and cigarettes — are killing us

By DOUGLAS ILKA
News Staff Writer

WITH his thinning hair, gold-rimmed glasses and professorial air, Dr. Samuel S. Epstein hardly looks the part of a man who has taken on much of the world's scientific, industrial and political communities in an attempt to pinpoint what really causes cancer. But at 55, Dr. Epstein obviously relies his public advocacy role.

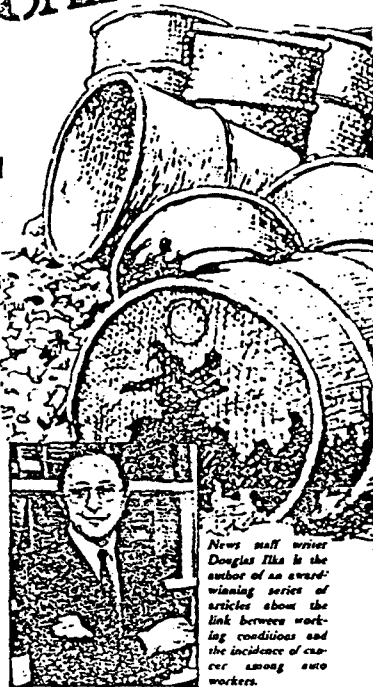
Fourteen floors up into the polluted atmosphere he so desperately wants to clean up, he pauses in his "Gold Coast" apartment on Chicago's upper north side to ponder questions on his favorite subject.

The answers come with meticulous precision in a British accent muted from years of consultation with American researchers, labor leaders and political activists.

Contrary to what some recent studies seem to indicate, cancer, he insists, is not caused by nearly everything around us. Instead, he says, it is caused by a relatively small number of chemical contaminants occurring at certain industrial sites or distributed throughout the environment by such processes as industrial pollution.

Dr. Epstein is an internationally recognized expert on toxicology and chemical carcinogens (cancer-causing agents). He has served since 1975 as professor of occupational and environmental medicine at the School of Public Health, University of Illinois at the Medical Center, Chicago. He holds multiple medical degrees from the University of London and has had 250 scientific papers published.

His *The Politics of Cancer* was a 1977 Sierra Club book selection which combined equal parts science, public policy and white-collar crime. The controversial tome, reprinted and expanded several



Dr. Samuel S. Epstein

times, marked Dr. Epstein as an enemy of industry and swept him to national prominence on radio and television talk shows. He is comfortable dealing with a wide range of questions about cancer, science and politics.

"Subversion of the democratic decision-making processes — this is what I am mainly interested in," he says. "It so happens that occupational issues are a good cutting edge. I've used cancer in this area as a paragon of failed democratic decision making — basically, showing how very powerful interests can manipulate and subvert overall democratic decision making. This is the unifying theme of my interests."

"I'm just finishing a book which tries to come to grips with the issue of hazardous wastes as an expression of technology run amok — the failure of social controls to come to grips with technology."

Dr. Epstein describes some of his views on cancer, science and politics in this interview:

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Q: There's a theory that smoking, diet and other aspects of a person's lifestyle may have a bearing on whether or not they get cancer. Why do you think there has been such emphasis placed on this theory?

A: The role of lifestyle has been grossly exaggerated as part of an industry strategy to minimize the importance of exposure to occupational and environmental carcinogens. Industry, for many years, has been evolving strategies to prevent regulations. One is the control of information and another is the denial of risk. The third element is: Blame the victim. If you get cancer, it's your own fault. You drink too much. You smoke too much. The lifestyle theory shifts the burden from industry to the individual.

Q: Who has been pushing the theory and why have they been pushing it?

A: If industry maintains that the worker gets cancer, that it's his

own fault, this removes from industry the onus to clean up the workshop. It's obvious that it is economic self-interest. Then there is in the scientific community a group which does not necessarily have any economic investment, but they have an intellectual investment to the theory — people in the last 10, 20, 30 years who should have known better but somehow got boxed in to the exclusivity of this theory and ignored the whole importance of occupational factors, and they are caught with their pants down.

Q: What about cigaret smoking?

A: There is a group of scientists who rightfully believe that tobacco is a very important cause of disease, mortality, morbidity and lung cancer — which I couldn't agree with more — but they've overemphasized and exaggerated the role of tobacco to the extent that they are basically excluding other causes. If

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you look at the whole history of tobacco, you have something like 28 retrospective epidemiological studies associating cancer and tobacco, but for all intents and purposes none of these inquire into the role of occupation. This is an extraordinary omission.

Q: What about diet?

A: There really isn't any scientific basis for incriminating diet as a major cause of cancer.

Q: The American public is being deluged with daily accounts of cancer being caused by such common substances as coffee and saccharin. Does everything cause cancer?

A: The number of chemicals that cause cancer are very few and far between. We only have epidemiological data on about 24 or 25 chemicals, the chemical agents and processes that have been shown to induce cancer. The idea that

everything causes cancer is very far from the truth. Cancer, a carcinogenic event, is a rare and a unique phenomenon.

Q: How can you say it is a rare occurrence when one out of four Americans will get cancer?

A: That's not what I said. The number of chemicals that induce cancer are very rare. That doesn't mean to say cancer is rare. The ability of chemicals to induce cancer is very, very exceptional. That's an enormous difference.

Q: What then, in your view, causes cancer?

A: I don't think there is any question that exposure to chemical carcinogens in the environment is the cause of the overwhelming majority of human cancers. Less than 500 chemicals, in total, have been shown to induce cancer in animals in tests of hundreds of thousands of chemicals.

2nd highest cause of death in U.S.



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Is there a safe limit that can be established for human exposure to a carcinogen?

A: No, that's completely nonsensical. We just don't have any safe limits for chemical carcinogens. Figures of parts per million or parts per billion are very misleading. They give the impression these are small amounts. They are not. They are enormous amounts. There are a wide range of carcinogens that have been shown to be active at the lowest levels tested, and these levels go down to parts per billion and parts per trillion.

Q: For 20 years scientists have tried to show that cancers are caused by viruses. With few exceptions that theory has proven false. Why?

A: While it was clear by 1974 that this line of research was poorly profitable, the power of an entrenched establishment — both in the National Cancer Institute and elsewhere — was such to basically defy attempts to shift funding from one area to more relevant areas of research.

Q: What about Interferon, the so-called "miracle" cancer drug?

A: Interferon is one of the classic boondoggles. The American Cancer Society has spent millions on the basis of very unsubstantial evidence. After spending \$16 million in research, there is a realization that Interferon is not the miracle drug — it isn't going to make a substantial difference in curing human cancers. In fact most cancers prove resistant to it after a short period of time. Interferon is "programed" to be a valuable and useful product from the point of view of the pharmaceutical industry, but for the cancer patient its significance is marginal.

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Exposure to toxic chemicals is a leading cause of cancer, according to Dr. Epstein.

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Q: You seem upset with the way Americans handle the cancer situation. Why don't you return to England?

A: I didn't say I was upset. I'm politically pragmatic. In America at least you have an open system. I've just completed a British edition of my book, in which I've pulled out all the American stuff on regulation and legislation and added about 200 pages on the British political scene. From the point of view of policy and decision making, it is vastly inferior to the American scene.

Q: Can you give a few examples?

A: They have a very strict libel law in England. You couldn't function as you do as reporter. You'd be in jail. They have an official secrets act that covers such things as the amount of chemicals discharged by industry in the local waterway. Bureaucrats can't be called into account before a congressional committee.

Q: What effect will the Reagan administration have on cancer research?

A: I think as far as the National Cancer Institute is concerned, there will probably not be any major cutbacks. But I think the effects, in spite of that, are going to be quite devastating — particularly in relation to occupational cancer and disease in general. The Reagan administration, without any question, is going to impose so-called strict cost-benefit analysis before any regulations for occupational exposures.

Q: What's wrong with cost-benefit analysis?

A: It is very misleading. It emphasizes the immediate cost of compliance and uses data from industry, in many cases these data are grossly exaggerated, while employees are overlooked. It balances these against the so-called benefits. The benefits of regulation, unlike the costs, are delayed 10, 20 or 30 years from now. It's very difficult to get an estimate of the number of lives that will be saved 20 years from now. The whole cost-benefit analysis has evolved as the modern strategy of industry to block regulation. I think we are going to see a massive dismantling of the whole occupational regulation apparatus.

Q: Many professionals criticize newspapers for printing articles about unexplained clusters of cancer incidence. They say newspapers shouldn't pretend to be scientists. What role should newspapers play?

A: One, a straight presentation of the facts. Another is interpretation of the facts. And a third is investigation of the facts. These are all different roles, which different newspapers perform with different degrees of skill and expertise. In my personal experience in the last 20 years, I've found the newspapers in this country have been responsible for more important advances in public health than the overwhelming majority of the scientific community put together. In no way am I arguing against scientific research. I'm saying we have so much information that is not being used appropriately that the key issue is implementation of information as opposed to the need for more scientific research.

Q: That view is not going to make you popular among your peers.

A: Popularity was never one of my objectives.

Q: How about their respect?

A: In general I think I have the respect of the scientific community. In the 1960s I was respected scientifically, but people were made uncomfortable by my public policy. Now, 15 years later, I have a lot of allies in the field of public policy. It's difficult to be too critical of me scientifically. It's a little difficult to write me off.

Q: How do you answer critics who say you are just a megalomaniac who likes to be in the press, who likes to be on TV, who enjoys being on the talk shows, who's selling a book?

A: That isn't a very serious question, because essentially what I am saying now is what I was saying in 1965, when I was selling nothing. The reason I wrote the book was to limit the demands on my time. I could have spent the rest of my life wandering around as an itinerant spokesman for the public interest community and for scientists who believe in the prevention of disease. □

