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A Call to Resist Illegitimate Authority

April 1997

Misleading and Irresponsible

Cancer Activists Decry Harvard Report

TATIANA SCHREIBER

Cancer activists and some cancer researchers are up in arms about a report released in November 1996 by the Harvard Center for Cancer Prevention, claiming to summarize current knowledge about the causes of human cancer. One of its goals, according to the authors, was to counter the excessive worry “the public” has about the threat posed by environmental carcinogens. According to the report, the most important causal factors are the “Big Four”—tobacco use, diet, obesity, and lack of exercise—and, in fact, only 2% of U.S. cancer deaths can be attributed to “environmental pollution.”

Such a conclusion ought to be cause for celebration. Perhaps our fear about the potential risk for cancer posed by pesticides, occupational exposures to hazardous chemicals, radiation, air pollution, hormones in food, and damage to the ozone layer really are overstated. According to the report, changing lifestyle factors—reducing fat, eating more fruits and vegetables, exercising more—could reduce cancer deaths by a third.

But the critics say you can read the same studies and come up with an opposite conclusion: that if we want to prevent cancer and protect human health we should make eliminating hazardous chemicals from the environment a top priority. The Harvard report puts a spin on the subject that symbolizes the current debate between those

who believe individual change is all that’s needed to reduce cancer risk, and those who demand collective political and social action to stop pollution.

What is Environmental Pollution?

For the purposes of the report, environmental pollution is defined as “air pollution and hormonally active aromatic organochlorines.” All other environmental hazards, if treated at all, are covered under separate headings. For example, if you add up the percentage of risk the report attributes to occupational factors (5%), radiation (2%), food additives and contaminants (1%) and environmental pollution you get 10%. About a half million deaths are caused by cancer in the U.S. each year, so that would be 50,000 deaths due to environmental factors.

The report attributes another 30% of risk to diet and obesity, without acknowledging that “diet” may mean exposures to environmental carcinogens in food. Three percent of risk is attributed to socioeconomic status, not acknowledging, again, that relative affluence or poverty may be markers for environmental exposures. By creating a separate category for “environmental pollution” and then defining this in such a limited way, the report succeeds in downplaying environmental risks.



Sierra Student Coalition members from Rhode Island rally for clean air. Photo by Lise Beane

But, that aside, let’s take a closer look at one of the risk factors the report does call environmental: “Hormonally active aromatic organochlorines” are said by the authors to account for just 1% of cancer risk. These include a very large group of chemicals (like the pesticides DDT, Atrazine, Endosulfan, and Kepone; and polychlori-

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nated biphenyls (PCBs), which were formerly used in electrical insulation and are thought to affect hormones in the body.

In the case of breast cancer, there is substantial evidence that risk increases with increased lifetime exposure to biologically active estrogens, primarily the form known as estradiol. (Estradiol is an estrogen produced by the body.) Controversy remains, however, over exactly how estrogens contribute to cancer development; at what age exposures might be more or less important; and, significantly, how cancer risk could be reduced without compromising health in other ways. For example, it is widely known that adolescent women who exercise and diet excessively often stop ovulating, thus reducing their exposure to estradiol. While this may be protective against breast cancer, it may also affect health in myriad more negative ways.

The Harvard report cites several studies that have shown a relationship between the estrogenic chemical DDE (a metabolite formed in the body from the pesticide DDT) and breast cancer, but terms these studies inconclusive and less significant than exposure to estrogen replacement therapy, occupational exposures, or natural variations in estrogen levels.

Evidence About Environmental Risk

Dr. Devra Lee Davis, a cancer researcher now with the World Resources Institute, has noted that a surprising number of chemicals that are *not* organochlorines are also estrogenic—i.e., they act like estrogen in the body. These include nonylphenol and Bisphenol A, components of plastic that can leach into food, especially when the plastic is heated.

Davis has proposed a mechanism by which estradiol metabolism may be linked to cancer. Estradiol can be converted in the body to two different metabolites. One of these, 16-alpha-hydroxy estrone is suspected of promoting breast cell proliferation and has been found in much higher amounts in animals with breast tumors. The other estradiol metabolite, 2-hydroxy estrone, may actually be protective.

Davis and colleagues at Cornell's Strang Cancer Prevention Center have

“The workers are like the canaries in the mine. The people outside the mine may not be killed, but exposures may be far more significant than current science is able to measure.”

**Martin Levin
MA Environmental
Crimes Task Force**

found that DDT, DDE, Atrazine (a common weed-killer) and Kepone increase the amount of the 16-alpha metabolite in cultured breast cancer cells, while the natural plant estrogen, indole-3-carbinol (which occurs in broccoli and other plants of the cabbage family) favors the production of the 2-hydroxy metabolite.

Davis speculates that the oft-noted lower breast cancer rate among Asian women as compared to African Americans and whites could be related to diets high in the plant estrogens that promote the 2-hydroxyestrone metabolite, and she cites at least one study that has found a higher proportion of what she terms the “good estrogen” in Asian women compared to non-Asians.

A critical point, which the Harvard report does *not* address, is the potential for synergistic effects between estrogenic chemicals. Researchers at the Tulane-Xavier Center for Bioenvironmental Research in New Orleans found that four pesticides (dieldrin, endosulfan, toxaphene, and chlordane), only weakly estrogenic when tested individually, were 160 - 1600 times more potent on laboratory grown cells when they were combined. The addition of weakly estrogenic PCBs to the culture also exhibited the synergistic effect.

Dr. Peter Montague, editor of *Rachel's Environment and Health Weekly*, was particularly concerned that the Harvard report failed to address the ways in which environmental pollutants damage the immune system. Dioxin, he pointed out, has both direct and indirect effects. One of the indi-

rect mechanisms, according to the Environmental Protection Agency's (EPA) 1994 report on dioxin, “is via the effects on the endocrine system. Several endocrine hormones have been shown to regulate immune responses. . . [dioxin] and other related compounds have been shown to alter the activity of these hormones.” The EPA report further concludes that dioxin can prevent the immune system from developing properly in the fetus, with lifelong consequences.

Montague argued that the complex system of specialized cells that make up the immune system is of central importance in protecting against cancer by intervening before potentially damaging mutations can cause harm. “If we want to talk about

prevention,” Montague said, “we ought to talk about not degrading the immune system. We ought to talk about reducing immune degrading chemicals, and we ought to study what harms the immune system.”

Sandra Steingraber, a cancer survivor and activist, has just completed a new book

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ILLEGITIMATE AUTHORITY
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For information and grant guidelines,
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examining cancer and environmental issues (see Resources on page 7). Steingraber was infuriated that the Harvard report failed to include drinking water contaminants in the environmental pollution section. She grew up in the cornbelt region of the Midwest, where drinking water can be heavily contaminated with herbicides at certain times of the year. The levels of these chemicals may not exceed the "legal" limits because that is calculated by the average exposure over a whole year. "Our bodies don't respond to averages," Steingraber noted. "The report doesn't take into account what might be happening to a young girl in Indiana whose breasts are developing just during that pulse [of contamination] in early spring."

The report cites 12 studies that have examined the risk for lung cancer in rural and urban areas and conclude that urban smokers are at an increased risk "estimated to be from 10 percent to 80 percent due to the additional effects of urban exposure." Yet the overall summary of the data, the authors claim, only allows them to attribute 1% of all cancer deaths to airborne pollutants. The threat posed by ground level ozone (formed by the combination of nitrogen oxides with volatile organic compounds) is not mentioned, although ozone is the principle ingredient in urban smog. Aside from all the other adverse health effects it causes, ground level ozone impairs the body's immune system. Regional differences in the mortality rates for breast and prostate cancer (higher in the North-

east and North Central U.S., which have more polluted air) have been explained by regional differences in other risk factors (later age at first pregnancy, later menopause, and higher alcohol consumption), although a recent NCI analysis controlling for all these factors still found an unexplained 13% higher incidence for breast cancer in the Northeast as compared to the rest of the country.

As this issue was going to press, a broad coalition of industry groups, governors, and some members of Congress had organized to halt the EPA's proposed new air-pollution standards, which would lower the permissible levels of ozone and soot. Industry groups, led by The Chemical Manufacturer's Association, have also or-

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Testimonies from Cancer Activists

My Heroes are People Fighting for Clean Air, Water, and Soil

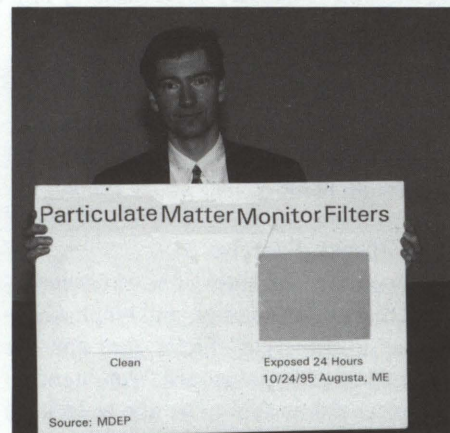
LISE BEANE

On a cold day in January 1997, scientists, doctors, environmentalists, and citizens, including many parents and students, rallied in support of proposed tougher air quality standards outside the Environmental Protection Agency's (EPA's) northeast public hearing. Inside, testimonies were being heard from a diverse cross-section of people, including representatives of major industries and concerned citizens appearing with ill family members or alone.

In her testimony to the EPA, Beedy Parker of Camden, Maine, a non-smoking mother of three who has asthma, bronchitis and breast cancer, told how she has watched the summer sky of her small hometown change over the years "from the crystal clear blue of the real Maine day to a yellow hue modified by a milky white glare."

Parker, who lives near a truck route with heavy diesel truck traffic, explained: "More and more of us are suffering the effects of air pollution. Pollution should not be regarded as the legitimate right of the transportation and energy industries, while all of us pay the costs in personal and social expenses, ill health, and death."

Citing statistics from U.S.P.I.R.G., Parker said, "a non-smoker living in an area with high levels of pollution can have 50% to



Conrad Schneider of the National Council of Maine shows the 24-hour accumulation of particulate matter. Photo by Lise Beane

75% of the lung damage of a one-pack-a-day smoker." She then voiced her concern about getting lung cancer on top of her other health problems, which are already aggravated by pollution. She closed her testimony with "Thank you very much" and a request to, "Please stand firm!" and defend the quality our natural air.

As no one really knows the total load of persistent toxins our bodies may already bear, and no one knows the short- or long-term effects of the many mixes of chemicals and radiation to which we may be already exposed, due to air pollution and a myriad of other sources, "Standing firm" for cleaner air makes good common sense.

The Message: Protect Our Ecosystem

More than 1,600 scientists from around the world, including 104 Nobel laureates, issued a "warning to humanity" that we are on "a collision course with nature." A report by the Nature Conservancy states that about one-third of the more than 20,000 native American species it examined were vulnerable to extinction due mainly to habitat damage.

In a revealing presentation at the EPA hearing, Conrad Schneider of the Natural Resources Council of Maine demonstrated with a large dirty piece of filter paper the accumulation of particulate matter during a 24-hour period in Augusta, Maine.

Air pollution affects human health and the health of all living things. It causes ground-level ozone, acid rain, diminishes the protective ozone layer in the upper atmosphere, and contributes to world climate change. We need to join Beedy Parker and others in saying to the EPA, "STAND FIRM!" and defend the quality of our air.

Lise Beane is a photojournalist living and working in Boston. She is a member of the Women's Community Cancer Project, Massachusetts Breast Cancer Coalition and Women's Environment and Development Organization.

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ganized to oppose the EPA's expansion of the number of businesses that must release information about the toxins they release into the air, water and land.

Occupational Exposures

It was the artificial separation of environmental pollution and occupational exposures that prompted Martin Levin, chief of the Massachusetts Environmental Crimes Strike Force, to write a commentary in the *Boston Globe* criticizing the Harvard report for concluding that environmental hazards are far less important for cancer prevention than "reduced smoking, dietary changes, reduced obesity, and greater physical activity."

The report looked at 42 substances studied in the last quarter century by the International Agency for Research on Cancer, and judged to be human carcinogens. The overall conclusion is that occupational exposures may account for 5% of cancer deaths. For lung cancer alone, however, the figure cited is 15% of male cancers, and for skin and bladder cancer, 10%. Levin pointed out that these are percentages for the total population, not only those occupationally exposed. "If what we are concerned about is prevention," Levin said, "10 or 15 percent for the general population indicates that the incidence of cancer for the exposed workers is very high." And these high occupational exposures raise concern about chronic low levels of exposure for everyone else, waste products from these industries, and accumulation of these toxic substances in the environment.

"The workers are like the canaries in the mine," Levin said. "The people outside the mine may not be killed, but exposures may be far more significant than current science is able to measure." The Harvard report praises improvements in industrial hygiene in the United States since the Occupational Health and Safety Act (OSHA) was enacted in 1970, and claims that control of occupational carcinogens is "an insufficiently recognized triumph for primary cancer prevention." But, as Levin comments, some of the decline in exposures here is due to industrial jobs moving to other countries, "so it would be reasonable to be concerned about whether adequate protections are being applied in those countries."

Reading the same studies, Levin argued, "one could have sent quite a different mes-



Activists rally outside the EPA's northeast public hearings held in Boston, MA, in January 1997. Photo by Lise Beane

sage, and one that has implications for public policy: that there are chemicals, fibers, and other materials in our environment that are carcinogenic, and when we are exposed to them in quantity, they cause cancer."

Diet, Obesity, Exercise

The report attributes 30% of cancer to adult diet and/or obesity, and emphasizes diet as a "lifestyle" factor that can be changed so as to reduce risk. Another 5% of cancer risk is said to be due to lack of exercise. Given these high numbers, it is tempting to conclude that if we ate better and exercised more, we could reduce our risk for cancer. With regard to breast cancer, though, obesity has only been found to be associated with cancers diagnosed after age 50, not with the development of cancer in younger women. In fact, in premenopausal women, being "overweight" may be somewhat protective. There is little evidence to suggest that losing weight or reducing fat intake as an adult will reduce your breast cancer risk.

None of the studies cited in the report are inconsistent with the hypothesis that obesity and/or animal fat in the diet are markers for environmental carcinogens present in food (or, as some have suggested, created in the process of high tem-

perature cooking of meat). The estrogenic chemicals present in the environment and used as pesticides on food are stored in body fat, and fat itself affects estrogen metabolism.

With regard to exercise, the evidence linking exercise to reduced risk for breast cancer is limited to strenuous exercise in adolescence, which may be related to reduced exposure to estrogen at a significant moment in breast tissue development. The "exercise" section of the report actually stresses that little is

known about the benefits of exercise with regard to cancer risk except in the case of colon cancer; there, it may be due to a faster rate of waste moving through the intestine, and therefore less prolonged exposure to carcinogens.

Members of the Women's Community Cancer Project (WCCP) in Boston say they find the emphasis on diet and obesity particularly irritating since many women with cancer are thin and exercise plenty. Vera Cohen, a member of the WCCP and the National Coalition for Health and Environmental Justice, says some activists find the stress on meat and animal fat "elitist and racist" because it implies that the cultural choice to eat meat is at fault, rather than contaminants in meat to which we are all exposed.

Sandra Steingraber and other critics of the report point out that diet is treated as an issue of lifestyle, when "in fact, diet is part of our place in the food chain and provides a major route of exposure to environmental carcinogens." Steingraber reports that 90% of our exposure to dioxin occurs through diet, and the vast majority of that is in animal fat. "It's another way we are asked to accommodate, to assume that contamination of our food is immutable, unchangeable."

Socioeconomic Status

In the section of the report that discusses socioeconomic status (SES) as a risk factor for cancer, the report lists lung, cervical, and stomach cancer as associated with lower incomes and levels of education, while breast cancer and melanoma are associated with higher SES. In discussing why this might be, the report includes lack of access to health care, exposure to psychosocial stress, lack of social support, and targeting by tobacco companies in the case of low SES.

What is troubling about thinking of SES as a "risk factor" is that, of course, the amount of money you have, or the amount of education you have, does not *cause* cancer. SES is always a surrogate for something else. In attributing a percentage of cancers to SES, the message that something in the environment may be contributing to disease development is obscured.

"It's a blame-the-victim perspective," said Montague. "You can make a choice about eating spinach or not. It's more difficult to choose not to eat pesticides or to control what's in your water or what's in your food. The choice just isn't available to most people to pick clean food or contaminated food."

Activists Call it Backlash

Why was the report presented in the way that it was? It is difficult to know for sure, of course, but some reasons can be suggested. First of all, the information in some of the individual chapters is much more supportive of environmental concerns than the overall conclusion. The introduction, conclusion, and table of risks all emphasize lifestyle. Evidently the report involved an attempt to find consensus about carcinogenic risk that just is not there. In the course of writing this article, many people called to my attention the fact that the Harvard School of Public Health lists in its 1996 annual report dozens of major chemical manufacturers among its large donors. These include the ARCO Chemical company, Asarco, Inc., Chevron, CIBA-GEIGY, Ltd., Dow Chemical, DuPont, Eastman Chemical Company, General Electric, Monsanto, Shell Oil, Texaco, Union Carbide, and Proctor and Gamble.

DuPont and Asarco were among the companies reporting the highest releases of toxic substances in 1994, according to an EPA report. Cieba-Geigy is the brains

behind Atrazine and, according to journalists Dan Fagine and Marianne Lavelle, has spent \$25 million dollars in its battle with the EPA over Atrazine, and another chemical, Simazine. Monsanto is the maker of bovine somatotropin (also called BGH), the growth hormone given to cows to increase milk production.

The spin the authors placed on this report may be part of an overall backlash against the developing consensus among health activists that research efforts should focus on what they define as primary prevention, which means getting rid of haz-

tween carcinogens and the body's systems of contending with them." So whether or not one gets cancer depends on a lot of things: genetic alterations established before birth; the extent of exposures to carcinogens during one's life; and the effectiveness of the body's defensive responses, which can vary sharply from one individual to the next.

While traditional epidemiological studies provide important clues about which factors might be relevant, they do little to establish the mechanism of cancer development, and they then can and are used to

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ardous chemicals in the environment. Martin Levin noted that by focusing on tobacco, diet and exercise, the authors point to things that they believe can be changed without resorting to social or political means. "The implicit concern was about where we are spending our resources and where we are focusing public attention; to the extent that resources are focused on environmental issues, they won't be focused on something else."

Other evidence of a backlash can be seen in the way in which Vermont's BGH labeling law was struck down in federal court after grocers argued that the law would hurt them economically. "The rights of dairies outweighs consumers' right to know what's in their milk" was how one reporter put the decision.

The Limits of Epidemiology

The Harvard report is problematic largely because it divides risk into categories which, unfortunately, our bodies do not. Cancer researcher Frederica P. Perrara described the genetic damage that leads to malignancies as occurring "in the course of living—via complex interactions be-

discredit environmental hypotheses. For example, in the Harvard report's chapter on electromagnetic fields (EMFs), studies linking childhood cancers to power lines are criticized because of the potential for confounding factors like: "fumes from vehicle traffic, nighttime street illumination, age of homes, and socioeconomic status." The potential confounders serve here to undermine the EMF association while saying nothing about the significance of fumes, street lights, old homes, and poverty—all of which might well be markers for additional, not less, exposure to environmental hazards.

Molecular epidemiologists such as Perrara are using the information from conventional epidemiological studies to search for "biological markers" that might indicate exposure to specific carcinogens, or increased vulnerability to environmental exposures in different individuals.

For example, noting the relationship between airborne carcinogens and increased rates of lung cancer in industrialized areas, Perrara and her colleagues have shown that air pollutants can leave a "fingerprint" on

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"Turning the Tides: Creating a Cancer-Free Environment Now" brought 250 people to St. Paul, Minnesota, last October to study the link between cancer and the environment. After this conference, sponsored by the Women's Cancer Resource Center in Minneapolis, 100 activists signed up to continue educating themselves and others on this topic, and to work on task forces on two fronts. The first was on a personal level to remove toxic chemicals and pesticides from their homes and lawns; the sec-

ond, on a national level to address the problems of chlorine and dioxin.

The Women's Cancer Resource Center has joined the Minnesota Environmental Partnership. Speakers from the Center have taken the cancer/environment message to nearly a dozen college and university groups. Part of that message comes from spokesperson Polly Mann who raises the issue of a political link to cancer, as well as an environmental one.

Turning the Tides on Cancer

The Politics of Cancer and the Environment

POLLY MANN

Among its 33-page "Cancer Facts & Figures," the American Cancer Society devotes just two pages to discuss environmental risks, carefully couched to dispel reader anxiety. This is not surprising. Syndicated columns, television physicians and popular magazine articles reassure us that even though some small fraction of cancer might be attributable to environmental toxins, responsible authorities "have the matter under control."

Currently, early detection is the most that can be offered to people concerned about cancer. To the person already diagnosed, this translates to: "You should have had that pap smear or seen the doctor earlier." The emphasis here is entirely on the personal: a healthy lifestyle, including exercise, fruits and vegetables, whole grains, no tobacco, limited alcohol and a clean genetic background.

However, books and magazines tell us about the connection between pollution and cancer. Marketing trend magazines look at cancer clusters. The Women's Environment & Development Organization (WEDO) has initiated a worldwide cancer prevention campaign, saying, "We don't accept the fact that one out of every three people will get cancer and one in four of those people will eventually die from it."

The American public also does not accept the necessity of pollution. In a 1996 Hart Poll, three of four voters identified environmental protection as a high priority for needed legislation. They are joined by many scientists and citizens' groups which are waging a campaign to halt proliferation of the chlorine-based chemicals (organochlorines) shown to cause cancer.

In fact, Greenpeace points to a dramatic drop in breast cancer in Israel (as reported

in the *RESIST Newsletter*, #246, May/June 1992) after a phaseout program for these chemicals. Similarly, the International Joint Commission called for the orderly phaseout of industrial chlorine use. This U.S. and Canadian advisory committee's charter is to assist both governments in cleaning up the Great Lakes, and calls for "timetables to sunset the use of chlorine and chlorine-containing substances." Further, in 1993 the governing council of the American Public Health Association unanimously approved a statement urging American industry to stop using chlorine.

Industry's Response to Cancer

Industry introduces 1,500 new chemicals annually—plastics, solvents, cleaning agents and reformulated fuels—and the government checks for toxicity on only about 12% to 20% of them. Out of 50,000 to 70,000 synthetic chemicals in our environment, only 2% of these provide any toxicity data, according to the National Research Council.

Radiation, too, is a carcinogen. Radiation epidemiologist Dr. Alice Stewart studied workers who were affected in the 1979 accident at Three Mile Island nuclear plant. She concluded that even small doses of radiation are four to eight times more likely to cause cancer than previously believed, and small doses of radiation over time may carry a higher risk of cancer than if received in a single dose.

The political struggle is between those concerned about the escalation of cancer and its links to environmental pollution, and those whose monetary interests are threatened by reduction or elimination of carcinogens in the environment. The latter are mainly corporations that make drugs, medical equipment, organochlorines, such as pesticides and herbicides, vinyl prod-

ucts and refrigerants. Add to that dry cleaners, paper mills and nuclear plants.

Industry's reaction to pollution questions is almost always an automatic denial of responsibility and the establishment of a "front" organization to fight the charges and manage ongoing public relations. The tobacco industry still denies the connection between smoking and cancer. National Breast Cancer Awareness Month was conceived and paid for by Zeneca Pharmaceuticals, a major producer of chlorine as well as Tamoxifen, a breast cancer treatment drug with annual sales approaching \$400 million. Zeneca was asked to add cancer prevention to its cancer awareness program but declined.

Cancer activists, environmentalists and others who want greater regulation of pollutants are up against a political system that, more and more, responds to campaign contributions and lobbying. Corporations with financial interests that would be threatened by regulations and who profit from the treatment—not prevention—of cancer, are politically influential, not only in making outright contributions, but through their membership on committees, panels and studies that provide them access to political power. Certainly, as cancer rates increase, the public may become sufficiently alarmed to demand campaign contribution reform as well as information on the conflict of interest that exists between some of the corporate members of scientific and data-gathering panels, and those seeking legislation for a cleaner environment.

Polly Mann is on the board of the Women's Cancer Resource Center in Minneapolis, MN, and is a founding member of Women Against Military Madness (WAMM). Both groups received RESIST grants in 1996.

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DNA molecules in human lung and blood cells. These changed forms of DNA are associated with greater than normal levels of other chromosomal disturbances. Molecular epidemiology, according to Ferrara, has the potential to "give early warning by flagging the preclinical effects of exposure. . . signaling opportunities to avert cancer through timely intervention."

Silent Spring Institute

In Massachusetts, an unusual collaboration between researchers and activists has resulted in the establishment of the Silent Spring Institute, which is funded by the Massachusetts Department of Public Health and private donors. The research institute grew directly out of concern about environmental threats on the part of members of the Massachusetts Breast Cancer Coalition. The Institute is examining potential reasons for high breast cancer rates on Cape Cod (21% above the rates seen in the rest of Massachusetts). Because of the Cape's porous, sandy soils and the fact that all of the Cape's waste water is discharged on land, researchers are particularly interested in looking at drinking water contamination.

Of tens of thousands of chemicals currently used in business, only about 100 have been tested for hormonal affects, according to Dr. Julia Brody, Director of the Institute. An intriguing aspect of the Cape Cod work is the use of a new test for estrogenicity developed by Dr. Ana Soto and Dr. Carlos Sonnenschein at Tufts Medical School. The E-Screen test involves exposing human breast cancer cells in culture to the suspect chemical and noting its effects on cell proliferation. The test makes it possible to test compounds and mixtures of unknown estrogenicity. Among the historic data researchers are examining are the use of pesticides on farms in areas that are now suburban, the use of lawn care products and cleaning and pest control products in the home, and proximity to waste sites and military installations. Recently Drs. David Ozonoff and Ann Aschengrau of Boston University have found "a modest association between breast cancer and living near the gun and mortar positions at the Massachusetts Military Reservation on Cape Cod." Brody notes that dinitrotoluene, a propellant used at the Reservation, is known to cause mammary tumors in animals.

**"You can make a choice about eating spinach or not. It's more difficult to choose not to eat pesticides or to control what's in your water or what's in your food."
Dr. Peter Montague**

None of this research would be happening without the continued vigilance and pressure of a few risk-taking scientists and environment and health activists. And that vigilance can't let up as long as prestigious research institutions make it their business to divert public attention from environmental hazards. As WCCP member Vera Cohen put it:

The [Harvard] study says what's out there is part of God's plan, when really this is what is being done for the profit of corporations or for military purposes. We don't need to live with all these toxins in our environment except that lots of corporations are profiting and a lot of people who are suffering don't have the power, or don't know how to put together the power, to stop it. Harvard is supposed to set a high standard, and that standard is supposed to be clear, not obfuscating. How public is this health?

Tatiana Schreiber is a freelance journalist and a student in the doctoral program in Environmental Studies at Antioch New England Graduate School. She lives in Putney, VT and misses Boston. Special thanks to Lise Beane and Rita Arditti, as well as all the members of the Women's Community Cancer Project, who provided reams of important documentation for this article. Notes and references for this article can be obtained by writing to the RESIST office.

Resources for Cancer Activists

- The 1st World Conference on Breast Cancer will be held July 13-17, 1997, in Kingston, Ontario. For information, contact Women's Environment and Development Organization (WEDO), 613/549-1118.
- 1 in 9: The Long Island Breast Cancer Action Coalition, Nassau County Medical Center, 2201 Hempstead Turnpike, East Meadow, NY 11554.
- Breast Cancer Action, 1280 Columbus Ave., #204, San Francisco, CA 94133; 415/922-8279.
- Cancer Prevention Coalition, 520 N. Michigan Avenue, Suite 410, Chicago, IL 60611; 312/467-0600; cpc@igc.apc.org.
- Citizens Clearinghouse for Hazardous Waste, 119 Rowell Court, PO Box 6806, Falls Church, VA 22040; 703/237-2249.
- National Coalition Against the Misuse of Pesticides, 701 E Street, SE, Suite 200, Washington, DC 20003.
- National Coalition for Health and Environmental Justice, 860 Pine Grove Ave., Traverse City, MI 49686; 616/933-0121.
- Rachel's Environment and Health Weekly*, Environmental Research Foundation, P.O. Box 5036, Annapolis MD 21403-7036; erf@rachel.clark.net.
- Silent Spring Institute, 29 Crafts Street, Newton, MA 02158; 617/332-4288; info@silent.shore.net.
- Women's Cancer Research Center Berkeley, 3023 Shattuck, Berkeley, CA 94705; 510/548-9286.
- Women's Cancer Research Center, 1815 E. 51st Street, Suite C, Minneapolis, MN 55407; 612/729-0491.
- Women's Community Cancer Project, 46 Pleasant St., Cambridge, MA 02139; 617/354-9888.
- Women, Health & the Environment (WEDO), 845 Third Avenue, 15th Floor, New York, NY 10022; 212/759-7982.
- Living Downstream: An Ecologist Looks at Cancer and the Environment* by Sandra Steingraber. It is published by Addison-Wesley, due out shortly.
- Toxic Deception: How the Chemical Industry Manipulates Science, Bends the Law and Endangers Your Health*, by Dan Fagin and Marianne Lavelle (Carol Publishing Group, 1996).
- Waking UP, Fighting Back: The Politics of Breast Cancer*, by Roberta Altman (Little, Brown, 1995).

GRANTS

In each issue of the Newsletter we highlight a few recent RESIST grants to groups around the United States. This month, we feature grants awarded at our March Board meeting. For more details about these grants, please write to the organizations themselves at the addresses listed below.

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1120 Garden Street
Cincinnati, OH 45214

Justice Watch was initiated five years ago by former prisoners, prisoners' families and other members of the community in response to the murder of unarmed African-American men killed by police during "arrests." Since its inception, the group has been addressing problems such as excessive use of force by police; unequal access to due process of law; inadequate health care in jail and prison; race and class bias in granting parole and release to prisoners; and inadequate access to treatment of chemical dependency.

A RESIST grant of \$1,000 will help purchase a new computer to promote correspondence with prisoners who are organizing for prisoners' rights, and the development of educational and organizational materials for the community.

Working for Equality and Economic Liberty (WEEL)

P.O. Box 7772
Missoula, MT 59807

WEEL was founded in 1996 in response to Montana's welfare "reform" package. Following the Bush administration's demand that state agencies apply for "waivers" to federal policy, the Montana legislature implemented Families Achieving Independence in Montana (FAIM), a program based on biases and stereotypes about welfare recipients. Since its inception, WEEL has been committed to addressing the root causes of poverty. The group has held a number of workshops on welfare reform and has been instrumental in organizing welfare recipients to attend public hearings held by the Department of Health and Human Services.

A RESIST grant of \$1,000 helped to enable welfare recipients and working poor people from Montana to attend a rally entitled "WEEL Storms Helena," protesting welfare "reform" and other attacks on low income people. The rally was an enormous success, supported by a range of progressive groups and drawing over 200 welfare recipients (among them members of the Hmong

population) who spoke out about how welfare "reform" is affecting their lives.

Summer of Unity and Liberation (SOUL)

P.O. Box 4449
Berkeley, CA 94704-0449

Launched last year by student activists who organized against the University of California Regents' 1995 decision to abolish affirmative action programs, SOUL seeks to develop multicultural youth leadership, community organizing skills, and a revolutionary vision for the future. Specifically, the group aims to develop a network of young organizers, particularly women and people of color, who have the ability and the courage to struggle not only with the issues of our times, but also with each other in the attempt to create a world that includes all people.

A RESIST grant of \$1,000 will help SOUL to purchase a computer system and printer to carry out basic administrative tasks related to the development of the organization.

Long Island Gay and Lesbian Youth (LIGALY)

32 West Main Street
Bay Shore, NY 11706

LIGALY, a bi-county grassroots community-based organization, formed in 1993 in response to the lack of services and education for gay, lesbian, bisexual and transgender (GLBT) youth on Long Island. Still the only GLBT agency on Long Island, LIGALY provides education, advocacy, social services and support for GLBT youth and young adults as well as all those for whom sexuality, sexual identity, gender identity and HIV/AIDS are issues.

A grant of \$1,000 from RESIST will help LIGALY continue its Youth Action Project's effort to establish Gay/Straight Alliances in Long Island schools and with other youth organizations. The group will launch a model Gay/Straight Alliance program for Long Island in the 1997/98 academic year.

Join the RESIST Pledge Program

We'd like you to consider becoming a RESIST Pledge.

Pledges account for over 25% of our income.

By becoming a pledge, you help guarantee RESIST a fixed and dependable source of income on which we can build our grant-making program. In return, we will send you a monthly pledge letter and reminder along with your newsletter. We will keep you up-to-date on the groups we have funded and the other work being done at RESIST.

So take the plunge and become a RESIST Pledge! We count on you, and the groups we fund count on us.

Yes! I'll become a RESIST Pledge.

I'll send you my pledge of \$ _____
every month/two months/
quarter/six months (circle one).

Enclosed is an initial pledge contribution of \$ _____.

I can't join the pledge program now, but here's a contribution of \$ _____ to support your work.

Name _____

Address _____

City/State/Zip _____

Phone _____