January 1 to December 31, 1989

President's Cancer Panel

Report of the Chairman

U.S. Department of Health and Human Services

Public Health Service

National Institutes of Health

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President's Cancer Panel

National Cancer Program National Cancer Institute

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August 15, 1990

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

The Health Omnibus Extension Act of 1988 requires the Chairman of the President's Cancer Panel to submit a report to you each year on the status of the National Cancer Program. Accordingly, I am pleased to submit my report for 1989 as attached.

My colleagues on the Panel, Dr. William P. Longmire and Dr. John A. Montgomery, agree that the National Cancer Institute's programs are well established and productive. We feel that major treatment advances have evolved from NCI-funded intramural and extramural research programs. Indeed, oncologists now have a fourth form of cancer therapy available due to the innovative work performed by Dr. Steven A. Rosenberg and his colleagues. In addition to the traditional treatment forms of surgery, radiation, and chemotherapy, we now have immunotherapy, which utilizes the body's own defense mechanism — the immune system — to fight cancer.

Recently, Dr. Rosenberg and his colleague at NCI, Dr. Michael Blaese, together with Dr. French Anderson of the National Heart, Lung, and Blood Institute, made history in furthering the understanding of tumor-infiltrating lymphocyte (TIL) therapy. They transferred a "foreign" nonhuman gene into a human patient to serve as a marker for tracking TIL cells in the body. Early results of this gene transfer are gratifying. The TIL treatment itself has improved the status of a number of patients so treated, all of whom had malignant melanomas and had not been expected to live past three months. Gene transfer research lays the groundwork for future therapeutic methods, potentially initiating an entirely new era in medicine for the correction of inherited diseases.

A further indication of the benefits achieved from the work of the National Cancer Institute lies in statistics showing that in 1980 cancer mortality was decreasing for Americans under 50; it has now been advanced to patients under age 65.

The scientific and technological discoveries of this past year were true harvests derived from wise investments made by the Federal government in the National Cancer Program. The Director of that Program, Dr. Samuel Broder, has contributed strongly and effectively to the furtherance of science and the achievement of outstanding clinical results.

Nevertheless, we on the Panel feel there is a renewed sense of urgency to redouble our efforts to ensure that all Americans, regardless of race or ethnic background, share equally in the benefits that are derived from the latest advances in cancer prevention and treatment, both now and in the future.

The legally mandated NCI By-Pass Budget describes specific funding requirements that would provide this Nation with the ability to capitalize on scientific opportunities in cancer research and could markedly reduce deaths from cancer within this decade. An Executive Summary of the 1992 By-Pass Budget is attached. The Panel strongly endorses its proposals. I understand the complete document, noting program accomplishments and future plans, is being provided to your office separately. We hope that this professional needs budget will be helpful in guiding you in preparing the FY 1992 budget. With sufficient resources it is my firm belief that we can make even stronger advances towards eradicating this disease.

I would also like to report, Mr. President, that my STOP CANCER Campaign continues to move forward. I was able to present the NCI with $5 million earlier this year and expect to provide an additional $7.5 million before the year is out, which will match the $12.5 million authorized by the Senate Appropriations Subcommittee specifically as a result of the STOP CANCER Campaign. These additional funds will be used by the NCI to support high-quality innovative research.

I would like to thank you for the privilege of serving as Chairman of your Cancer Panel. Your continued support for the programs of the NCI has permitted the Institute to continue the excellent work they are undertaking. I hope the attached report will prove useful to you and others in your Administration in planning for the future. As always, you have my great admiration for your accomplishments, both domestic and international, and for the inspired leadership you provide to all Americans.

Respectfully,

Chairman

AH:ec

Attachments

1989 CHAIRMAN'S REPORT TO THE PRESIDENT

During 1989 the members of the President's Cancer Panel conducted hearings at institutions in the United States where the National Cancer Program is being implemented. We also participated in all meetings of the National Cancer Advisory Board held at the National Institutes of Health in Bethesda, Maryland. The Panel was witness to remarkable progress in cancer research throughout the country in various aspects of cancer prevention, diagnosis, and treatment. The Panel also recognized that addressing the cancer problem in minority and underserved populations requires serious attention and additional support.

In 1989 we continued the approach I initiated in 1981, at the time of my first appointment as Chairman of the President's Cancer Panel. My colleagues Dr. William P. Longmire and Dr. John A. Montgomery and I have held meetings at three institutions that conduct research training and cancer control activities supported by the National Cancer Institute (NCI). Dr. Samuel Broder, Director of the NCI, participated with us in these meetings, which were held at Howard University in Washington, D.C., at Meharry Medical College in Nashville, Tennessee, and at Stanford University in California.

At the Howard University Cancer Center, Dr. Kenneth Olden, Director, reported on specific black cancer research issues, and the Commissioner of Public Health for Washington, D.C., Dr. Reed Tuckson, described the issues surrounding the high incidence and mortality of cancer in blacks.

Dr. David Satcher, President of Meharry Medical College, told the Panel about the new Drew-Meharry-Morehouse Cancer Consortium, which is designed to concentrate its unified strength on the problems of cancer in black populations. This NCI-supported center will enhance training, education, and community involvement in areas of maximum need.

The Panel meeting at Stanford University concentrated on biomedical training and technology transfer. Dr. David Korn, Vice President and Dean of the School of Medicine, provided the Panel with an excellent case study of the commercial development of laboratory findings by an amalgam of private capital, university facilities, and federally supported basic research. Such development promotes the rapid transfer of research findings to applications for cancer treatment and diagnosis.

The final meeting of the year was held in Bethesda, Maryland, to hear reports from the Assistant Secretary for Health, DHHS, the Commissioner of the Food and Drug Administration (FDA), and the NCI staff.

The Institute researchers told the Panel about new drugs used to treat certain cancers and the use of gene-modified cells in cancer immunotherapy. FDA Commissioner Frank Young provided details about new collaborative programs at the FDA and the NCI, and Assistant Secretary for Health, Dr. James Mason, delivered an excellent overview of health research from the national perspective.

Cancer Prevention

The National Cancer Institute and the National Cancer Program are dedicated to generating knowledge and applying it quickly. They constitute the Nation's response to the challenge of cancer: a million new cases diagnosed each year and the loss of a half-million lives. We on the Panel believe it would be much worse had the NCI's efforts not been so successful to date.

Currently, there are more opportunities for research projects than there are funds available to support them, and more tasks than there are staff to perform them. NCI's programs are well established and productive. Successful research requires not only creative and skilled scientists, but well-equipped laboratories. We must prevent erosion in our cancer centers, each of which is a major resource to the community it serves, and to the Nation.

Estimates are that two-thirds of all cancers may be linked to lifestyle. Reducing the morbidity and mortality from cancer during this decade will likely rest on one lifestyle change: reduction of smoking. To meet this challenge, NCI has signed a cooperative agreement with the American Cancer Society to carry out a major smoking reduction program called the American Stop Smoking Intervention Study, or ASSIST/2000.

ASSIST/2000 is a demonstration project that will be the largest program in tobacco-use prevention and cessation in the world. It will reach more than one-fifth of the U.S. population, including at least 15 million smokers in large metropolitan areas, towns, or entire states. Intervention approaches will be employed in randomized trials such as school-based programs, self-help strategies, physician/dentist-delivered interventions, mass media approaches, and community-based interventions.

The value of screening mammography has been clear for well over two decades. Low-cost mammograms are available as part of special campaigns to detect cancer. Yet only 17 percent of women 40 years of age and over have ever had mammograms. The reasons that women do not seek mammograms generally relate to issues such as finances, fear, and pessimism rather than to a lack of information

about the value of early detection of small tumors.

The NCI has initiated a National Breast Screening Awareness Campaign employing mass media materials and physician and patient education to encourage mammography use for early detection. A Women's Leadership Summit on Mammography was held last fall on Capitol Hill to launch this campaign. First Lady Barbara Bush gave the keynote address encouraging women to put mammography on their personal and professional agendas.

The Pap test, another well-established screening test, is also underused. It is estimated that 6,000 women will die this year of cervical cancer despite the fact that the Pap test is almost universally available and can detect precancerous changes in the early curable stage of this cancer. Women must be encouraged to have this test performed.

The National Cancer Institute has undertaken other cancer prevention research. NCI-supported chemopreventive clinical trials are testing methods to inhibit the development of cancer with various substances such as vitamins and micronutrients. Some studies are focused on high-risk individuals such as testing the preventive effects of beta-carotene and retinol for asbestos workers. Another trial is evaluating the preventive role of dietary fiber and calcium in individuals who have a high risk of colon cancer.

A recent NCI-supported study indicated that a high wheat-fiber supplement given to patients with familial adenomatous polyposis decreased the number of precancerous polyps. This is an exciting finding and can lead to significant advances in the prevention of colorectal cancer.

Various clinical results reaffirm the principle that real gains in reducing cancer incidence and mortality will ultimately come from prevention strategies. Earlier efforts at prevention were aimed at eliminating exposure to carcinogens and identifying early lesions. Recent new understanding of genetic events that lead to cancer has stimulated sophisticated interventions in patients with inherited cancer-receptive defects.

The NCI's primary focus in the Cancer Prevention Research Program is to develop, evaluate, and disseminate successful strategies for the control and prevention of cancer. This has been implemented by the Community Clinical Oncology Program (CCOP), which includes research trials in cancer treatment, cancer control, and research into cancer prevention. During 1989 there were 52 community programs initiated in 30 states, involving over 2,000 physicians.

In the review conducted by the Panel it was recognized that this program has been extremely successful, particularly in the area of clinical trials accrual, and should indeed be doubled to cover all states and reach at least 100 communities in the Nation.

Cancer Treatment

Major treatment advances have evolved from NCI-funded intramural and extramural research programs. The seminal work in immunotherapy has added a fourth treatment modality to the traditional ones of surgery, radiation, and chemotherapy. This treatment uses various "host cells" of the patient that are enhanced in the laboratory and then reinjected into the patient to fight the patient's tumor.

Recently, two NCI scientists, Drs. Steven Rosenberg and Michael Blaese, together with Dr. French Anderson of the National Heart, Lung, and Blood Institute, made history in furthering the understanding of tumor-infiltrating lymphocyte (TIL) therapy. They transferred a "foreign" nonhuman gene into a human patient to serve as a marker for tracking TIL cells in the body. Enhanced TIL cells kill tumor cells while sparing normal cells.

Early results of this gene transfer are gratifying. The genes were transferred on May 22, 1989, and the TIL cells with those transferred genes have remained active in some patients. The TIL treatment itself has improved the status of a number of the patients, all of whom had malignant melanomas and had not been expected to live past three months.

Additional NCI research on biological response modifiers has produced very exciting early clinical results in otherwise untreatable cancers. The gene transfer research lays the groundwork for future therapeutic methods, potentially initiating an entirely new era in medicine for the correction of inherited diseases.

Clinical treatment research expands upon promising leads developed in preclinical research and evaluates new treatments in patients with cancer. Clinical trials consist of three phases. Phase I trials establish the maximum dose tolerated and provide information on side effects encountered with the new therapy. Phase II trials examine the efficacy of the new drug for various types of cancer. Phase III trials compare the new treatment with the best previously known therapy.

The development of resistance to chemotherapeutic agents remains a great obstacle to complete tumor eradication and long-term disease-free survival. One of the most intensively studied examples of this phenomenon is multidrug resistance, characterized by resistance to a wide variety of diverse drugs following exposure to only one of them. It has been discovered that multidrug resistance by cancer cells is caused by overactivity of a "drug pump" called pgp (p-glycoprotein pump). In new experiments, some common drugs such as verapamil, quinidine, and others have been shown to block the function of this pump, resulting in a reversal of multidrug resistance. Clinical trials are now being conducted that combine chemotherapy with pgp-blocking agents.

Last year the Arizona Cancer Center reported the first trial involving patients who had tumors expressing pgp. Patients had developed newly progressive disease while receiving a treatment protocol containing vincristine, doxorubicin, and dexamethasone. When verapamil was added to the protocol, three of eight patients responded positively. Research in this area is being pursued intensively at a number of NCI-supported clinical centers.

The NCI maintains a vigorous program for new drug development in its search for drugs and biologics against cancer. A number of new agents have reached clinical use. Suramin, a drug long used for treating parasitic infections, is being evaluated in patients with advanced prostate cancer. It provides some significant responses in prostate cancers that have progressed to a metastatic stage not responsive to hormonal therapy.

This year the FDA approved Group C status for two important anticancer drugs. Group C status for investigational new drugs is conferred when NCI proves a compound to be safe and effective for treating certain cancers. In May 1989, the NCI also received FDA approval to add the drug combination of levamisole plus 5-fluorouracil (5-FU) for use in the adjuvant treatment of colon cancer.

This combination therapy reduced mortality from Stage III (Dukes' C) colon cancer by as much as one-third, and can affect the lives of about 400 patients per month.

Deoxycoformycin was also approved by the FDA for Group C this past year, and can now be made available to physicians for appropriate patients. New drug approvals for marketing were given for ifosfamide, flutamide, and carboplatin. Ifosfamide is used to treat refractory metastatic testis cancer; flutamide has been effective in treating metastatic prostate cancer; and carboplatin has produced significant positive effects in refractory metastatic ovarian cancer.

At your request, President Bush, the Panel established the National Committee to Review Current Procedures for Approval of New Drugs for Cancer and AIDS to identify methods to streamline the FDA drug approval process. This committee of nine extremely competent and dedicated citizens has been holding hearings to develop recommendations regarding the issues you posed as head of the Presidential Task Force on Regulatory Relief. Dr. Louis Lasagna, Dean of the Sackler School of Biomedical Sciences at Tufts University, is the Chairman of the group. Upon completion of the committee's final report, it will be submitted to your office.

For the past 17 years the National Cancer Act has fostered cancer treatment research. Cancer mortality in children declined 36 percent between 1973 and 1987, which is recognized as being due to treatment, particularly through the Nation's network of clinical trials and cancer centers. Mortality rates among persons under age 65 have markedly decreased for many forms of cancer. For patients under age 65, the overall mortality rate for all cancers combined decreased 4.5 percent between 1973 and 1987.

However, the incidence of new cancer cases such as melanoma and non-Hodgkin's lymphoma, breast cancer, and lung cancer in women continues to rise. Mortality rates have declined for other cancers, including uterine corpus and cervix, urinary bladder, thyroid, stomach, ovary, oral cavity, leukemia, colon and rectum, pancreas, brain, and nervous system. Cancer deaths in young adults have decreased greatly. Mortality rates for testicular cancer and Hodgkin's disease have declined by more than 50 percent since 1973.

Bladder cancer mortality has decreased 32 percent; ovarian cancer by 25 percent; colorectal cancer by 15 percent; oral cancer by 20 percent; cervical cancer by 39 percent; and cancer of the corpus uteri by 37 percent.

Other cancers have shown increases: lung and bronchus, 15 percent; melanoma, 16 percent; multiple myeloma, 7 percent; and esophageal cancer, 5 percent.

In the nine years that mark my tenure as Chairman of your Cancer Panel, I have witnessed the impressive advance in the age groups that have benefited from achievements of the National Cancer Program. In 1980 cancer mortality was decreasing for Americans under age 50; it now has been advanced to patients under age 65. This milestone is a tribute to the combination of new basic research, technology transfer, and innovations in cancer treatment.

For persons 65 years of age and older, the overall cancer mortality rate has increased. Some common cancers have shown declines, including colorectal cancer, 7 percent; bladder cancer, 20 percent; and cervical cancer, 40 percent. Other sites have shown increased mortality: lung cancer, up by 53 percent; melanoma by 55 percent; brain cancer by 58 percent; non-Hodgkin's lymphoma by 40 percent; multiple myeloma by 33 percent; breast cancer by 12 percent; and prostate cancer by 8 percent. When 1987 is compared with 1973 for all sites combined, there has been a 13 percent increase in mortality for individuals 65 and older compared to a 21 percent increase in cancer incidence over that 15-year span.

It is estimated that 1,040,000 Americans will be diagnosed with cancer in 1990, and approximately 510,000 people will die of cancer during the year. These projected estimates are based on an increase in the number of older Americans who are at higher risk for developing the disease; half of U.S. cancer cases occur in persons over 67 years of age.

Cancer Etiology

Several forms of cancer appear to develop in at least two steps: the initiation stage and one or more promotion stages. The initiation stage involves an interaction with the cellular DNA so as to alter some gene functions. Initiators include chemicals, fibers, radiation, and viruses. Nutritional, hormonal, environmental, and genetic factors can act as promoters, which do not cause cancer directly, but facilitate the process.

Research this year in animals and in vitro characterized the products of carcinogen-DNA interactions that are termed "adducts." Sensitive immunologic techniques employing new antibodies were developed to detect adducts in individuals exposed to various environmental carcinogens. Such adducts may be useful as indicators of exposure to carcinogens that occurred many years previously.

In contrast to tumor initiators, tumor promoters do not appear to interact with DNA. They act by modulating gene expression, cell differentiation, and growth. Several chemicals have been found to act as antipromoters in a laboratory model system, which suggests these agents may be useful to prevent cancers in humans.

Biological carcinogenesis research examines the mechanisms of carcinogenesis involving biological agents, viruses, and genes at the cellular and molecular levels. It has been found that cancer may occur either through the direct effects of viral transforming genes entering cells or indirectly through an initial interaction with environmental factors such as chemicals, radiation, alcohol, and dietary components followed by genetic modifications of cells.

Research regarding viral oncogenes, cellular proto-oncogenes, and suppressor genes is being vigorously pursued, and continues to provide fundamental information about the development of human cancer.

Acquired Immunodeficiency Syndrome (AIDS)

The National Cancer Institute conducts AIDS research as an extension of its viral cancer research program and its drug development program and has a significant role in AIDS drug and vaccine development.

During the past decade, NCI established a comprehensive Preclinical AIDS Drug Screening Program, now capable of testing well over 10,000 new compounds per year for activity against the human immunodeficiency virus (HIV). Azidothymidine (AZT), still the only agent proven to prolong the lives of AIDS patients, was developed at the NCI in collaboration with the Burroughs Wellcome Company. Several other agents that inhibit HIV in cell culture are in clinical development. The NCI AIDS Vaccine Task Force is pursuing a coordinated approach to the development of an effective AIDS vaccine. During the past decade, NCI has devoted major efforts to investigating the exact biologic mechanisms by which HIV causes infection, immune system destruction, multiorgan system dysfunction, and some HIV-related cancers. NCI has also undertaken several epidemiologic and natural history studies, both descriptive and interventional, in the United States and abroad. These studies aim to determine the time course of HIV infection and of overt disease, to identify the major risk factors for acquiring HIV, and then to design competent strategies to interrupt these processes. This research is presently yielding valuable information.

The NCI AIDS drug development program includes three basic components: a high-capacity drug screen to assess compounds for activity against the HIV virus; a laboratory-based effort for developing novel approaches to drug treatment; and a program for preclinical and early clinical development of drugs with promising anti-HIV activity.

Sixteen drugs moved through the program in 1989 and have reached early clinical studies for antiviral therapy. In addition to the development of AZT, NCI has a number of promising new compounds under clinical development, including dideoxycytidine (ddC), dideoxyinosine (ddI), and fluorinated versions of these drugs. The concept of multimodality or combination therapies, such as those used in cancer treatment, offers promise for AIDS treatment as well.

The FDA recently has made ddI available under a Treatment IND to individuals who are not in clinical trials. Essentially, the guidelines will allow treatment with ddI for patients who are not able to benefit from AZT and who are not eligible for clinical trials.

The NCI has also been involved in the development of agents for opportunistic infections, including trimetrexate for the treatment of *Pneumocystis carinii* pneumonia, a frequent threat to the lives of AIDS patients. The search continues for various laboratory and animal models for clinical testing of drugs and treatment approaches in AIDS research.

Tumor Biology and Molecular Genetics

Tumor biology research supported by the National Cancer Institute has made significant progress in the analysis of tumor cells. It has become more evident that cancer is a disease involving genetic changes in normal somatic cells.

Several years ago, it was found that DNA from tumor cells contains cancer-causing genes called oncogenes that can transform a normal cell to a malignant one. Oncogene research has shown that the cancer cells contain mutated versions of normal cellular genes that are responsible for the abnormal cell growth and behavior associated with cancer. These discoveries have led to new and testable theories regarding cancer causation and to new approaches to cancer prevention, diagnosis, and treatment. Dr. J. Michael Bishop and Dr. Harold E. Varmus received the Nobel Prize this past year for their research on oncogenes, which was supported by the NCI.

A second group of cellular genes important in oncogenesis has been revealed by studies of the familial inheritance of cancer. These genes are called antioncogenes or suppressor oncogenes, because they suppress the development of cancer. The absence of the gene product rather than its presence is responsible for transformation of normal cells to cancer cells. One example of a suppressor oncogene is the Rb gene, which if lost or inactivated leads to the development of retinoblastoma, a tumor of the eye in young children. The product of another oncogene, called p53, has been successfully used this past year to inhibit cancerous transformation. This research is being intensively pursued in NCI-supported laboratories throughout the country.

Conclusions

My colleagues and I have examined the National Cancer Program in depth across the Nation. We have reviewed the basic research programs, the clinical applications, the progress in prevention and control efforts, the initiation of new minority awareness programs, and the overall progress toward elimination of the diseases collectively called cancer. As Chairman of the President's Cancer Panel, I recognize that our regional meetings, as well as the meetings held in Bethesda by the National Cancer Advisory Board, have provided a heightened awareness of the diversity of the problems. The scientific and technological discoveries of this past year were true harvests derived from wise investments made by the Federal government in the National Cancer Program. It is my view that Dr. Samuel Broder, the excellent Director of that National Program, whom you appointed in January 1989, is contributing strongly and effectively to the furtherance of science and the achievement of outstanding clinical results.

Almost $600 billion is spent annually on medical care in the United States, and much of that cost is borne by the Federal government. Only medical research will provide effective methods to conquer the diseases that cause those expenditures. The National Cancer Program represents an investment for the good of the American people. I therefore feel that this Nation should commit three times its present investment to health research, which is now less than two percent of the cost of medical care.

A decade of neglect of our Nation's physical facilities for cancer research and medical education has created a dire need for replacement and modernization in the laboratories and hospitals throughout the country.

The cancer mortality rates in the overall U.S. population could be cut in half using established technologies in cancer prevention and treatment. Minority and underserved populations must receive the benefits of these technologies. Clinical advances must be delivered rapidly throughout the Nation to all populations.

We on the Panel feel there is a renewed sense of urgency to redouble our efforts to ensure that all Americans, regardless of race or ethnic background, share equally in the benefits that are derived from the latest advances in cancer prevention and treatment, both now and in the future.

The legally mandated NCI By-Pass Budget request describes specific funding requirements that would provide this Nation with the ability to capitalize on scientific opportunities in cancer research and could markedly reduce deaths from cancer within this decade. An Executive Summary of the 1992 By-Pass Budget is appended to this report. The Panel strongly endorses its proposals.

This report has been prepared with the cooperation and approval of my colleagues on the President's Cancer Panel, William P. Longmire, Jr., M.D. and John A. Montgomery, Ph.D.

Armand Hammer

Chairman

President's Cancer Panel

National Cancer Program National Cancer Institute

August 20, 1990

The Honorable Dan Quayle
President of the Senate
S-212 Capitol Building
Washington, DC 20510

Dear Mr. President:

As Chairman of the President's Cancer Panel, I am pleased to enclose a copy of the report to the President which I have prepared on the status of the National Cancer Program as operated by the National Cancer Institute. Section 415(3) (b) of the Health Omnibus Extension Act of 1988 requires that the report be made available to the Congress in addition to the President.

My colleagues on the Panel, Dr. William P. Longmire and Dr. John A. Montgomery, agree that the National Cancer Institute's programs are well established and productive. We feel that major treatment advances have evolved from NCI-funded intramural and extramural research programs.

One of the most significant developments of the past year involves tumor-infiltrating lymphocyte (TIL) therapy, which seeks to utilize the body's own defense mechanism—the immune system—to seek out and destroy cancer cells. Dr. Steven Rosenberg of the NCI, who initially developed the TIL therapy, and his colleague Dr. Michael Blaese, together with Dr. French Anderson of the National Heart, Lung, and Blood Institute, made history in furthering the understanding of TIL therapy. They transferred a "foreign" nonhuman gene into a human patient to serve as a marker for tracking TIL cells in the body. Early results of this gene transfer are gratifying. The TIL treatment itself has improved the status of a number of patients so treated, all of whom had malignant melanomas and had not been expected to live past three months. Gene transfer research lays the groundwork for future therapeutic methods, potentially initiating an entirely new era in medicine for the correction of inherited diseases.

A further indication of the benefits achieved from the work of the National Cancer Institute lies in statistics showing that in 1980 cancer mortality was decreasing for Americans under 50; it has now been advanced to patients under age 65.

In spite of advances which have been achieved, we on the Panel feel there is a renewed sense of urgency to redouble our efforts to ensure that Americans, regardless of race or ethnic background, share equally in the benefits that are derived from the latest developments in cancer prevention and treatment, both now and in the future.

The legally mandated NCI By-Pass Budget describes specific funding requirements which would provide this Nation the ability to capitalize on scientific opportunities in cancer research and could markedly reduce deaths from cancer within this decade. An Executive Summary of the 1992 By-Pass Budget is attached. The Panel strongly endorses its proposals.

My colleagues and I hope that you will find the attached report useful.

Sincerely,

Armand Hammer

Chairman

AH:ec

Attachments

President's Cancer Panel

National Cancer Program National Cancer Institute

Chairman:
Dr. Armand Hammer
Occidental Petroleum Corporation

Dr. John A. Montgomery
Southern Research Institute

Dr. William P. Longmire, Jr.
Center for the Health Sciences
University of California, Los Angeles

Executive Secretary:
Dr. Elliott H. Stonehill
National Cancer Institute
Bethesda, MD 20892
Telephone: 301-496-1148

August 20, 1990

The Honorable George J. Mitchell
Majority Leader
United States Senate
S-221 Capitol Building
Washington, DC 20510

Dear Senator:

As Chairman of the President's Cancer Panel, I am pleased to enclose a copy of the report to the President which I have prepared on the status of the National Cancer Program as operated by the National Cancer Institute.

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My colleagues and I hope that you will find the attached report useful in view of your special responsibility in the Congress in the area of health and human services.

Sincerely,

Armand Hammer

Chairman

AH:ec

Attachments

President's Cancer Panel

National Cancer Program National Cancer Institute

Chairman:
Dr. Armand Hammer
Occidental Petroleum Corporation

Dr. John A. Montgomery
Southern Research Institute

Dr. William P. Longmire, Jr.
Center for the Health Sciences
University of California, Los Angeles

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Telephone: 301-496-1148

August 20, 1990

The Honorable Louis W. Sullivan
Secretary
Department of Health and Human Services
200 Independence Avenue, SW
Washington, DC 20201

Dear Mr. Secretary:

As Chairman of the President's Cancer Panel, I am pleased to enclose a copy of the report to the President which I have prepared on the status of the National Cancer Program as operated by the National Cancer Institute. Section 415(3) (b) of the Health Omnibus Extension Act of 1988 requires that the report be made available to the Secretary of Health and Human Services, as well as the President and the Congress.

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My colleagues and I hope that you will find the attached report useful in view of your special responsibility.

Sincerely,

Armand Hammer

Chairman

AH:ec

Attachments

President's Cancer Panel

National Cancer Program National Cancer Institute

August 20, 1990

The Honorable Thomas S. Foley
Speaker of the House
United States House of Representatives
Capitol Building H-204
Washington, DC 20515

Dear Sir:

As Chairman of the President's Cancer Panel, I am pleased to enclose a copy of the report to the President which I have prepared on the status of the National Cancer Program as operated by the National Cancer Institute. Section 415(3) (b) of the Health Omnibus Extension Act of 1988 requires that the report be made available to the Congress in addition to the President.

My colleagues on the Panel, Dr. William P. Longmire and Dr. John A. Montgomery, agree that the National Cancer Institute's programs are well established and productive. We feel that major treatment advances have evolved from NCI-funded intramural and extramural research programs.

One of the most significant developments of the past year involves tumor-infiltrating lymphocyte (TIL) therapy, which seeks to utilize the body's own defense mechanism—the immune system—to seek out and destroy cancer cells. Dr. Steven Rosenberg of the NCI, who initially developed the TIL therapy, and his colleague Dr. Michael Blaese, together with Dr. French Anderson of the National Heart, Lung, and Blood Institute, made history in furthering the understanding of TIL therapy. They transferred a "foreign" nonhuman gene into a human patient to serve as a marker for tracking TIL cells in the body. Early results of this gene transfer are gratifying. The TIL treatment itself has improved the status of a number of patients so treated, all of whom had malignant melanomas and had not been expected to live past three months. Gene transfer research lays the groundwork for future therapeutic methods, potentially initiating an entirely new era in medicine for the correction of inherited diseases.

A further indication of the benefits achieved from the work of the National Cancer Institute lies in statistics showing that in 1980 cancer mortality was decreasing for Americans under 50; it has now been advanced to patients under age 65.

In spite of advances which have been achieved, we on the Panel feel there is a renewed sense of urgency to redouble our efforts to ensure that Americans, regardless of race or ethnic background, share equally in the benefits that are derived from the latest developments in cancer prevention and treatment, both now and in the future.

The legally mandated NCI By-Pass Budget describes specific funding requirements which would provide this Nation the ability to capitalize on scientific opportunities in cancer research and could markedly reduce deaths from cancer within this decade. An Executive Summary of the 1992 By-Pass Budget is attached. The Panel strongly endorses its proposals.

My colleagues and I hope that you will find the attached report useful.

Sincerely,

Armand Hammer

Chairman

AH:ec

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