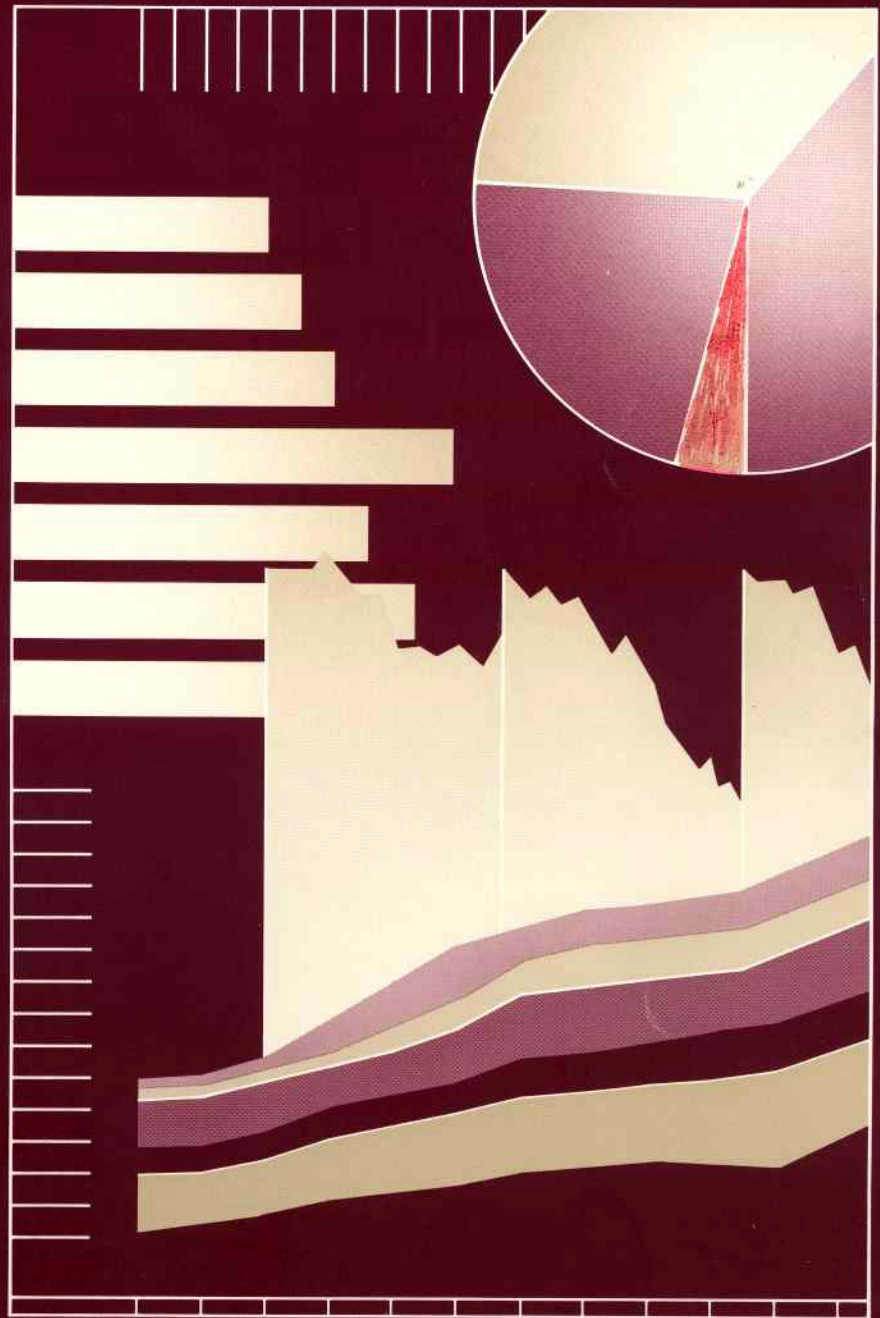


NCI

# FACT BOOK

National  
Cancer  
Institute



1986

U.S. DEPARTMENT  
OF HEALTH AND  
HUMAN SERVICES

Public Health  
Service

National  
Institutes of  
Health

NCI

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# FACT BOOK

National  
Cancer  
Institute

For Administrative Use

1986

U.S. DEPARTMENT  
OF HEALTH AND  
HUMAN SERVICES

Public Health  
Service

National  
Institutes of  
Health

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## **Preface**

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The information set forth in this publication is compiled and amended annually by the Financial Management Staff of the National Cancer Institute and is intended primarily for use by members of the Institute staff, the principal advisory groups to the Institute and others involved in the administration and management of the National Cancer Program. Questions regarding any of the information contained herein may be directed to the Financial Manager, National Cancer Institute, 9000 Rockville Pike, Bethesda, Maryland 20892.

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## Directory of Personnel

	<b>Direct-in Dialing</b>
<hr/>	
<i>Director</i>	<i>Building 31</i>
Dr. Vincent T. DeVita, Jr.* .....	11-A-48 ..... 496-5615
<i>Special Assistant</i>	<i>Building 31</i>
Dr. Maryann Roper .....	11-A-19 ..... 496-3505
<i>Manager, Equal Employment Opportunity</i>	<i>Building 31</i>
Ms. Maxine I. Richardson .....	10-A-33 ..... 496-6266
<hr/>	
<i>Deputy Director</i>	<i>Building 31</i>
Dr. Peter Fischinger* .....	11-A-48 ..... 496-1927
<hr/>	
<i>Assistant Director</i>	<i>Building 31</i>
Dr. Elliott Stonehill .....	11-A-23 ..... 496-1148
<hr/>	
<i>Director, Staff Operations</i>	<i>Building 31</i>
Ms. Iris Schneider .....	11-A-48 ..... 496-5534
<i>Chief, Systems Planning Branch</i>	<i>Building 31</i>
Ms. Barbara Murray .....	10-A-52 ..... 496-5515
<i>Legislative Analyst/Congressional Liaison</i>	<i>Building 31</i>
Dr. Mary Knipmeyer .....	10-A-32 ..... 496-5217
<hr/>	
<i>Associate Director for Prevention</i>	<i>Building 31</i>
Dr. Peter Greenwald* .....	4-A-32 ..... 496-6616
<hr/>	
<i>Associate Director for Cancer Communications</i>	<i>Building 31</i>
Mr. J. Paul Van Nevel .....	10-A-29 ..... 496-6631
<i>Chief, Information Resources Branch</i>	<i>Building 31</i>
Ms. Nancy Brun .....	10-A-30 ..... 496-4394
<i>Chief, Reports and Inquiries Branch</i>	<i>Building 31</i>
Ms. Eleanor Nealon .....	10-A-29 ..... 496-6631
<i>Chief, Information Projects Branch</i>	<i>Building 31</i>
Ms. Rose Mary Romano .....	4-B-41 ..... 496-6793
<hr/>	
<i>Associate Director for International Affairs</i>	<i>Building 31</i>
Dr. Ihor J. Masnyk, Acting .....	4-B-55 ..... 496-4761
<i>Director, International Cancer Information Center</i>	<i>Building 82</i>
Ms. Susan P. Hubbard .....	102..... 496-9096
<hr/>	
<i>Associate Director for Administrative Management</i>	<i>Building 31</i>
Mr. Philip Amoruso* .....	11-A-48 ..... 496-5737
Vacant, Deputy .....	<i>Building 31</i> 11-A-48 ..... 496-5737
<i>Chief, Administrative Services Branch</i>	<i>Building 31</i>
Mr. James Prather .....	11-A-29 ..... 496-5801
<i>Chief, Financial Management Branch</i>	<i>Building 31</i>
Mr. John P. Hartinger .....	11-A-18 ..... 496-5803

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**Direct-in  
Dialing**

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<i>Chief, Personnel Management Branch</i> . . . . .	<i>Building 31</i>	
Ms. Marianne Wagner . . . . .	3-A-19 . . . . .	496-3337
<i>Chief, Research Contracts Branch</i>	<i>Blair Building</i>	
Mr. John Campbell . . . . .	332 . . . . .	427-8810
<i>Chief, Management Analysis Branch</i>	<i>Building 31</i>	
Mr. Thomas L. Kearns . . . . .	11-A-33 . . . . .	496-6985
<i>Chief, Grants Administration Branch</i>	<i>Westwood Building</i>	
Mr. Leo F. Buscher, Jr. . . . .	8-A-18 . . . . .	496-7753
<i>Chief, Extramural Financial Data Branch</i>	<i>Westwood Building</i>	
Mr. Robert E. Spallone . . . . .	8-A-03 . . . . .	496-7660
<i>Chief, Management Information Systems Branch</i>	<i>Building 31</i>	
Ms. Betty Ann Sullivan . . . . .	10-A-49 . . . . .	496-1038
<hr/>		
<i>Frederick Cancer Research Facility</i>	<i>Frederick, Maryland</i>	
<i>General Manager/Project Officer</i>	<i>Building</i>	
Dr. Cedric W. Long . . . . .	427 . . . . .	FTS-8-978-1108
<i>Deputy General Manager</i>	<i>Building</i>	
Mr. Richard Carter . . . . .	427 . . . . .	FTS-8-978-1106
<hr/>		
<i>Director, Division of Cancer Etiology</i>	<i>Building 31</i>	
Dr. Richard Adamson* . . . . .	11-A-03 . . . . .	496-6618
<i>Administrative Officer</i>	<i>Building 31</i>	
Mr. Mark Kochevar . . . . .	11-A-11 . . . . .	496-6556
<hr/>		
<i>Director, Division of Cancer Biology and Diagnosis</i>	<i>Building 31</i>	
Dr. Alan S. Rabson* . . . . .	3-A-03 . . . . .	496-4345
<i>Administrative Officer</i>	<i>Building 31</i>	
Mr. Larry D. Willhite . . . . .	3-A-05 . . . . .	496-3381
<hr/>		
<i>Director, Division of Cancer Treatment</i>	<i>Building 31</i>	
Dr. Bruce Chabner* . . . . .	3-A-52 . . . . .	496-4291
<i>Administrative Officer</i>	<i>Building 31</i>	
Mr. Donald Christoferson . . . . .	3-A-50 . . . . .	496-2775
<hr/>		
<i>Director, Division of Extramural Activities</i>	<i>Building 31</i>	
Mrs. Barbara Bynum* . . . . .	10-A-03 . . . . .	496-5147
<i>Administrative Officer</i>	<i>Building 31</i>	
Mr. Lawrence J. Ray . . . . .	10-A-10 . . . . .	496-5915
<hr/>		
<i>Director, Division of Cancer Prevention and Control</i>	<i>Building 31</i>	
Dr. Peter Greenwald* . . . . .	4-A-32 . . . . .	496-6616
<i>Administrative Officer</i>	<i>Building 31</i>	
Mr. Nicholas Olimpio . . . . .	4-A-49 . . . . .	496-9606

\*NCI Executive Committee Members

## Year 2000 Goals and Objectives

The National Cancer Institute has established a set of objectives to guide the cancer control effort of the United States through the year 2000. The objectives are based on existing knowledge of how to prevent, diagnose and treat cancer, and on the gains in treatment that are likely to occur over the next decade. If these objectives are met then as much as a fifty percent reduction in the cancer mortality rate can be achieved by the end of the year 2000. The objectives emphasize four main areas: smoking prevention and cessation, dietary modification to prevent cancer, early detection of cancer through effective screening, and widespread application of the latest achievements in treatment research.

The following is an outline of the cancer control objectives:

<b>Control Area</b>	<b>Brief Rationale</b>	<b>Year 2000 Objective</b>
Prevention/ Smoking	The causal relationship between smoking and cancer has been scientifically established.	<ul style="list-style-type: none"> <li>— Reduce the percentage of adults who smoke from 34 percent (in 1983) to 15 percent or less.</li> <li>— Reduce the percentage of youths who smoke by age 20 from 36 percent (in 1983) to 15 percent or less.</li> </ul>
Prevention/ Diet	Research indicates that high-fat and low-fiber consumption may increase the risk for various cancers. In 1983 NAS reviewed research on diet and cancer and recommended a reduction in fat; more recent studies led NCI to recommend an increase in fiber. Research is underway to verify the causal relationship and to test the impact on cancer incidence.	<ul style="list-style-type: none"> <li>— Reduce average consumption of fat from 40 percent to 30 percent or less of total calories.</li> <li>— Increase average consumption of fiber from 8 to 12 grams per day to 20 to 30 grams per day.</li> </ul>
Screening/ Breast	The effectiveness of breast screening in reducing mortality has been scientifically established.	<ul style="list-style-type: none"> <li>— Increase the percentage of women ages 50 to 70 who have annual physical breast exam and mammography from 45 percent for physical exam alone and 25 percent for mammography to 80 percent for each.</li> </ul>
Screening/ Cervical	The effectiveness of cervical screening in reducing mortality has been scientifically established.	<ul style="list-style-type: none"> <li>— Increase the percentage of women who have a Pap smear every 3 years to 90 percent from 79 percent (ages 20 to 39) and to 80 percent from 57 percent (ages 40 to 70).</li> </ul>
Treatment/ Transfer of Research Results to Practice	NCI review of clinical trial and SEER data indicates that, for certain cancer sites, mortality in SEER is greater than mortality experienced in clinical trials.	<ul style="list-style-type: none"> <li>— Increase adoption of state-of-the-art treatment, including improved treatment of micrometastases.</li> </ul>

## Significant Initiatives in 1986

### National Cancer Institute Acquired Immune Deficiency Syndrome Actual Funding

(Dollars in Thousands)

1984	1985	1986
\$16,627	\$26,874	\$45,050

### Progress in Acquired Immune Deficiency Syndrome (AIDS)

NCI activities in the past year have been unparalleled with respect to the understanding and treatment of AIDS. Significant advances have been made in unravelling the processes used by the HTLV-III virus to take over a cell. These advances include the identification of viral genes such as the "tat" gene, which enables the virus to overwhelm the cell's normal internal machinery. The understanding of these processes is important in that it may allow us to design specific therapies which can combat the virus with minimal effect on the host cell.

The drug Azidothymidine (AZT), whose anti-retroviral activity was discovered by scientists in the NCI intramural program, has been determined to be effective in the treatment of AIDS as a result of Phase I and II clinical studies conducted under NCI scientific guidance. Other anti-retroviral compounds are also being developed within this program that are expected to add substantially to the treatment of AIDS.

A coordinated effort within the NCI involving multiple laboratories has identified several ways in which "neutralizing antibodies" can be generated against the HTLV-III virus. Although these studies are in the very early stages, they hold substantive promise with regard to ultimately generating an effective vaccine against this disease.

The NCI continues to work in concert with the National Institute of Allergy and Infectious Diseases (NIAID) to establish a large scale drug development program against AIDS which will span the breadth of clinical drug development. These efforts include the acquisition, the preclinical testing, and the clinical testing of the most promising anti-AIDS compounds.

NCI is also encouraging the development of partnerships with the private sector to defeat AIDS. One such partnership is to award exclusive license to private industry for the compound 2'-3'-dideoxycytidine. This agent was developed in the NCI intramural program, and based on preclinical data, appears even more promising than AZT. This effort is reflective of a number of ongoing efforts to enlist elements from the private sector in combating the war against AIDS.

### Hispanic Cancer Control Program (HCCP)

The NCI developed a Hispanic Cancer Control Program (HCCP) to address a number of issues regarding cancer in Hispanics. To address the lack of data on cancer in Hispanics, two priority areas for the HCCP are data collection and data analyses. To assist in the collection of data, the NCI Surveillance, Epidemiology and End Results (SEER) Program added the state of New Jersey to its data collection efforts. Hispanics will also be over-sampled in the Cancer Control Supplement to the 1987 National Health Interview Survey which is conducted by the National Center for Health Statistics and the Bureau of the Census. Also, a study has been commissioned by the HCCP which is examining data sources for information on cancer in Hispanics related to the Institute's cancer mortality reduction objectives. This study will identify data sources which contain information on Hispanics, both published as well as unpublished, and identify gaps of information about cancer in Hispanics insofar as such information would relate to monitoring progress to achieving the mortality reduction objectives for Hispanics.

Current efforts being taken by NCI in preventing cancer in the Hispanic population include the funding of four research projects related to smoking



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and Hispanics, and one research project regarding health education for cancer screening and detection of elderly Hispanic women. Besides these projects, in April, 1986, the NCI convened a workshop for identifying NCI Hispanic program priorities and directions.

**Physician Data Query (PDQ-P)**

The Physician Data Query (PDQ) system has been available for the past two years as a resource to provide physicians nationwide with information about state-of-the-art cancer treatment for cancer patients. A new service of the PDQ system, called PDQ-P, is being designed as a computerized information system to facilitate the delivery of cancer prevention and screening activities during the course of typical primary care encounters. The PDQ-P concept has been successfully field tested among various primary care physician groups. Feedback from these groups is being used to tailor the system better to the needs of the practicing physician. Responding physicians have also provided considerable input to NCI on effectively reaching the public with prevention and screening information.

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## National Cancer Program National Cancer Institute

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### **Director's Biography**

*Vincent T. DeVita, Jr., M.D.*

Vincent T. DeVita, Jr., M.D. has served as Director of the National Cancer Institute since July 9, 1980. He joined NCI initially in 1963 as a Clinical Associate in the Laboratory of Chemical Pharmacology, left in 1965 to complete advanced training in medicine at Yale-New Haven Medical Center and returned to the National Cancer Institute in 1966.

He has served NCI consecutively as a Senior Investigator in the Solid Tumor Service, Head of the Solid Tumor Service, Chief of the Medicine Branch, and Director of the Division of Cancer Treatment from 1974 until his appointment as NCI Director. In addition, he has served concurrently as NCI Clinical Director since 1975.

Dr. DeVita earned his Bachelor of Science degree from the College of William and Mary in 1957. He was awarded his M.D. degree with distinction from the George Washington University School of Medicine in 1961. He was Associate Professor of Medicine from 1971 to 1975 and has had the appointment Professor of Medicine since 1975 at the George Washington University School of Medicine.

In 1972, Dr. DeVita received the Albert and Mary Lasker Medical Research Award for his contribution to the cure of Hodgkin's disease. In 1980 he was awarded the Griffuel Prize by the Association for the Development of Research on Cancer, again for his important contributions to cancer chemotherapy, particularly his development of curative multiple drug therapy for Hodgkin's disease and diffuse large cell lymphoma. He was awarded an Honorary Doctor of Science degree by the College of William and Mary in 1981, the Alumni Achievement Award from the George Washington University in 1963 and an Honorary Doctor of Science degree from George Washington University in 1984.

In 1985, Dr. DeVita was elected to the Institute of Medicine of the national Academy of Sciences and was presented the Pierluigi Nervi Award for Cancer Research in Italy, the Medal of Honor from the American Cancer Society, and the Barbara Bohlen Pfeifer Award from the American-Italian Foundation for Cancer Research. Awards in 1986 include the Tenth Richard and Hinda Rosenthal Award (American Association for Cancer Research, Inc.) and the Stanley G. Kay Memorial Award (D.C. American Cancer Society).

He is past-president and board member of the American Society of Clinical Oncology, has served on the board of directors of the American Association for Cancer Research and as a member of the panel of consultants to the International Union Against Cancer. Dr. DeVita also serves on the editorial boards of numerous scientific journals and is the author or co-author of more than 300 scientific articles. In addition, he is one of the editors and authors of *Cancer: Principles and Practice of Oncology*, a comprehensive textbook in the field of cancer medicine.

### **President's Cancer Panel**

Armand Hammer, M.D. *Chairman* (1987)  
*Occidental International Corporation*  
*Washington, D.C. 20006*

William P. Longmire, Jr., M.D. (1988)  
*Veteran's Administration*  
*Los Angeles, California 90073*

John A. Montgomery, Ph.D. (1989)  
*Southern Research Institute*  
*Birmingham, Alabama 35255*

*Executive Secretary*  
Dr. Elliott H. Stonehill  
*National Cancer Institute, NIH*  
*Bethesda, Maryland 20892*

## National Cancer Advisory Board

Appointees	Expiration of Appointment	Appointees	Expiration of Appointment	Appointees	Expiration of Appointment
Dr. David Korn, <i>Chairman</i> <i>Stanford University</i> <i>Stanford, California</i>	1990	Dr. John R. Durant <i>Fox Chase Cancer Center</i> <i>Philadelphia, Pennsylvania</i>	1992	Mrs. Irene Sue Pollin <i>Psychiatric Social Worker-</i> <i>Private Practice</i> <i>Chevy Chase, Maryland</i>	1992
Mr. Richard A. Bloch <i>Kansas City, Missouri</i>	1988	Dr. Gertrude B. Elion <i>Burroughs Wellcome Company</i> <i>Research Triangle Park, North</i> <i>Carolina</i>	1990	Mrs. Barbara I. Shook <i>Barbara Ingalls Shook</i> <i>Foundation</i> <i>Birmingham, Alabama</i>	1988
Dr. Roswell K. Boutwell <i>University of Wisconsin</i> <i>Madison, Wisconsin</i>	1990	Dr. Bernard Fisher <i>University of Pittsburgh</i> <i>Pittsburgh, Pennsylvania</i>	1992	Dr. Louise C. Strong <i>M.D. Anderson Hospital and</i> <i>Tumor Institute</i> <i>Houston, Texas</i>	1990
Dr. Victor Braren <i>Vanderbilt University School</i> <i>of Medicine</i> <i>Nashville, Tennessee</i>	1988	Dr. Phillip Frost <i>Key Pharmaceuticals</i> <i>Miami, Florida</i>	1992	Dr. Louis W. Sullivan <i>Morehouse School of Medicine</i> <i>Atlanta, Georgia</i>	1992
Mrs. Nancy G. Brinker <i>Susan G. Komen Foundation</i> <i>Dallas, Texas</i>	1992	Dr. Geza J. Jako <i>Institute for Research in</i> <i>Laser Surgery</i> <i>Melrose, Massachusetts</i>	1988		
Mrs. Helen G. Brown <i>Jonsson Comprehensive Cancer Center</i> <i>Los Angeles, California</i>	1990	Dr. Enrico Mihich <i>Roswell Park Memorial</i> <i>Hospital</i> <i>Buffalo, New York</i>	1990		
Dr. Ed L. Calhoon <i>Beaver, Oklahoma</i>	1988				
Dr. Tim Lee Carter <i>Tompkinsville, Kentucky</i>	1988				

### Executive Secretary

Mrs. Barbara S. Bynum  
*National Cancer Institute, NIH*  
*Bethesda, Maryland*

### Ex Officio Members

The Honorable Otis R. Bowen, M.D.  
*Secretary for Health and Human*  
*Services*

The Honorable William E. Brock  
*Secretary of Labor*  
*Washington, DC*

Vincent T. DeVita, Jr.  
*National Institutes of Health, PHS*  
*Bethesda, Maryland*

Dr. William R. Graham  
*Office of Science and Technology*  
*Policy*  
*Washington, DC*

Dr. John Gronvall  
*Veterans Administration*  
*Washington, DC*

The Honorable William E. Mayer  
*Department of Defense*  
*Washington, DC*

Dr. J. Donald Millar  
*National Institute for Occupational*  
*Safety and Health*  
*Atlanta, Georgia*

Dr. David P. Rall  
*National Institute of Environmental*  
*Health Sciences*  
*Research Triangle Park, North*  
*Carolina*

Mr. Terrance Scanlon  
*Consumer Product Safety Commission*  
*Washington, DC*

Mr. Lee Thomas  
*Environmental Protection Agency*  
*Washington, DC*

Dr. James B. Wyngaarden  
*National Institutes of Health*  
*Bethesda, Maryland*

Dr. Frank E. Young  
*Food and Drug Administration*  
*Rockville, Maryland*

### Alternates to Ex Officio Members

Dr. Mary Ann Danello  
*Food and Drug Administration*  
*Rockville, Maryland*

Dr. Richard J. Greene  
*Veterans Administration*  
*Washington, DC*

Dr. James Melius  
*National Institute for Occupational*  
*Safety and Health*  
*Cincinnati, Ohio*

Dr. Peter W. Preuss  
*Environmental Protection Agency*  
*Washington, DC*

Dr. Robert Rabin  
*Office of Science and Technology*  
*Policy*  
*Washington, DC*

Vice Admiral Lewis H. Seaton  
*Office of Chief of Naval Operations*  
*Washington, DC*

Dr. Andrew Ulsamer  
*Consumer Product Safety Commission*  
*Bethesda, Maryland*

Dr. Ralph E. Yodaiken  
*Department of Labor*  
*Washington, DC*

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## Division Boards of Scientific Counselors

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### Division Boards of Scientific Counselors

#### Division of Cancer Biology and Diagnosis

Matthew D. Scharff, M.D., <i>Chairperson</i>	1987		
Stephen B. Baylin, M.D.	1989	Arnold J. Levine, Ph.D.	1990
George I. Bell, Ph.D.	1989	Joseph S. McGuire, Jr., M.D.	1988
Susan E. Cullen, Ph.D.	1990	Richard S. Metzgar, Ph.D.	1990
Vittorio Defendi, M.D.	1990	Robert L. Perlman, M.D., Ph.D.	1987
Barbara A. Hamkalo, Ph.D.	1987	Harold E. Varmus, M.D.	1987
Kathryn V. Holmes, Ph.D.	1990	Sandra L. White, Ph.D.	1989
Nancy E. Kleckner, Ph.D.	1987	Ray J. Wu, Ph.D.	1987

#### Division of Cancer Treatment

Paul Calabresi, M.D., <i>Chairperson</i>	1987		
Yung-chi Cheng, Ph.D.	1990	John Mendelsohn, M.D.	1990
Lawrence H. Einhorn, M.D.	1989	Rodrigue Mortel, M.D.	1987
Emil Frei, III, M.D.	1990	John E. Niederhuber, M.D.	1990
Karen K. Fu, M.D.	1987	Charles E. Putman, M.D.	1989
Robert L. Goodman, M.D.	1987	Alan S. Rosenthal, M.D.	1987
Mark T. Groudine, M.D., Ph.D.	1990	Geraldine Schechter, M.D.	1989
Robert C. Jackson, Ph.D.	1988	Robert T. Schimke, M.D.	1989
John H. Kersey, M.D.	1988	H. Rodney Withers, M.D., D.Sc.	1989

#### Division of Cancer Etiology

G. Barry Pierce, M.D., <i>Chairperson</i>	1987		
Anna D. Barker, Ph.D.	1990	Maureen T. O'Berg, Ph.D.	1988
William F. Benedict, M.D.	1989	Roy Shore, Ph.D.	1988
Janet S. Butel, Ph.D.	1989	Moyses Szklo, Ph.D.	1990
George W. Casarett, Ph.D.	1990	George F. Vande Woude	1989
Lawrence Fischer, Ph.D.	1990	Lee W. Wattenberg, M.D.	1987
Dietrich Hoffmann, Ph.D.	1988	Noel S. Weiss, M.D.	1989
Hilary Koprowski, M.D.	1990	Alice S. Whittemore, Ph.D.	1990
William T. London, M.D.	1989	Mimi C. Yu, Ph.D.	1988
Peter N. Magee, M.D.	1989		

#### Division of Cancer Prevention and Control

Erwin P. Bettinghaus, Ph.D., <i>Chairperson</i>	1987		
Philip T. Cole, M.D.	1990	Mary-Claire King, Ph.D.	1989
William A. Darity, Ph.D.	1990	Lewis H. Kuller, M.D., Dr.P.H.	1987
Johanna T. Dwyer, D.Sc.	1989	William C. Levin, M.D.	1988
Paul F. Engstrom, M.D.	1989	Virgil Loeb, Jr., M.D.	1987
Virginia L. Ernster, Ph.D.	1990	Robert J. McKenna, M.D.	1989
Lloyd K. Everson, M.D.	1990	Frank L. Meyskens, Jr., M.D.	1990
Donald M. Hayes, M.D.	1989	David J. Sencer, M.D.	1988
David M. Hegsted, Ph.D.	1987	John E. Ultmann, M.D.	1988
Donald C. Iverson, Ph.D.	1990	Kenneth E. Warner, Ph.D.	1989

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## Executive Committee Members

---

Dr. Vincent T. DeVita, Jr.  
*Director*

Dr. Peter Fischinger  
*Deputy Director*

Mr. Philip Amoruso  
*Associate Director for Administrative Management*

Dr. Richard Adamson  
*Director, Division of Cancer Etiology*

Mrs. Barbara Bynum  
*Director, Division of Extramural Activities*

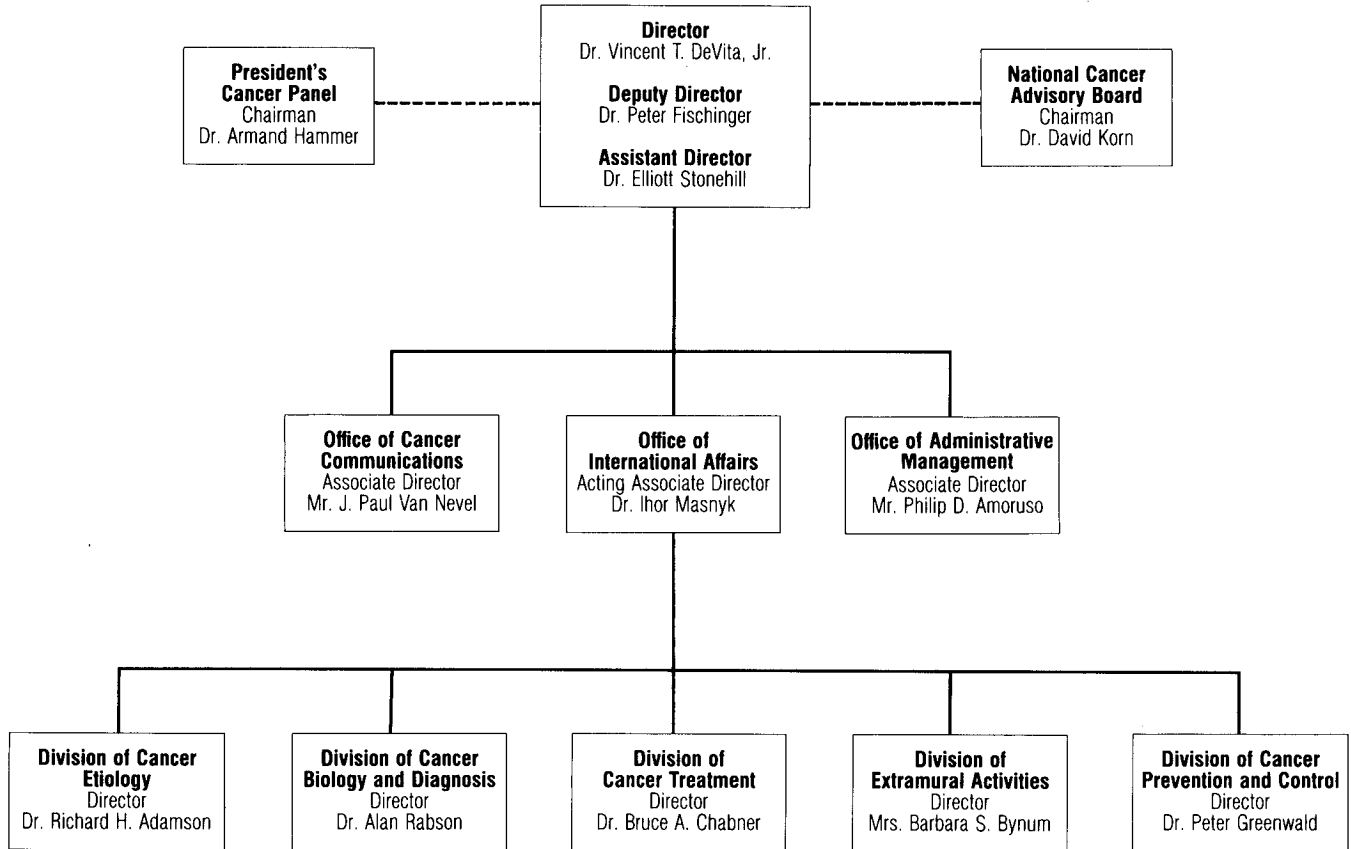
Dr. Bruce Chabner  
*Director, Division of Cancer Treatment*

Dr. Peter Greenwald  
*Director, Division of Cancer Prevention and Control*

Dr. Alan Rabson  
*Director, Division of Cancer Biology and Diagnosis*

Ms. Iris Schneider  
*Executive Secretary*

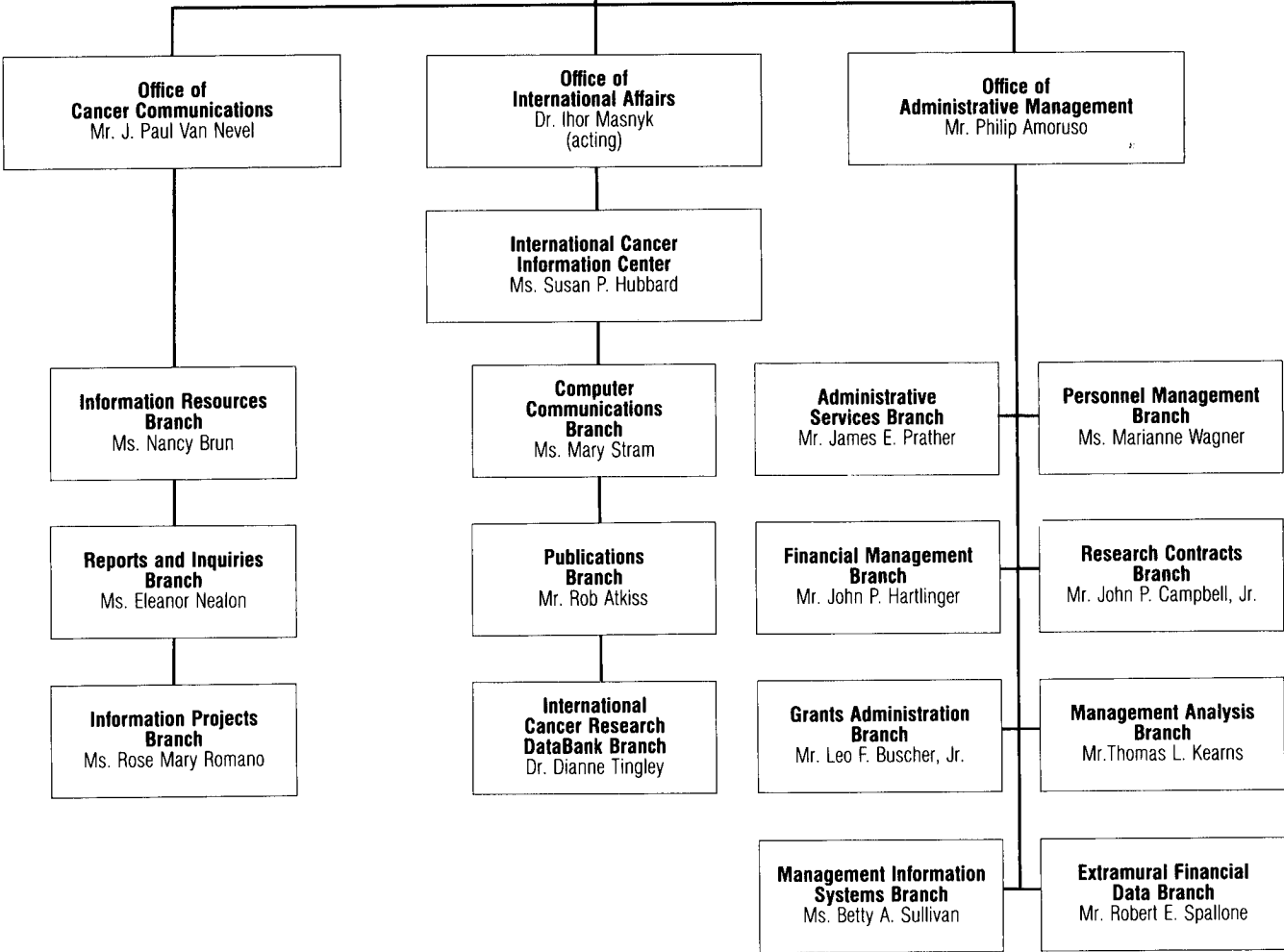
# National Cancer Institute Organization

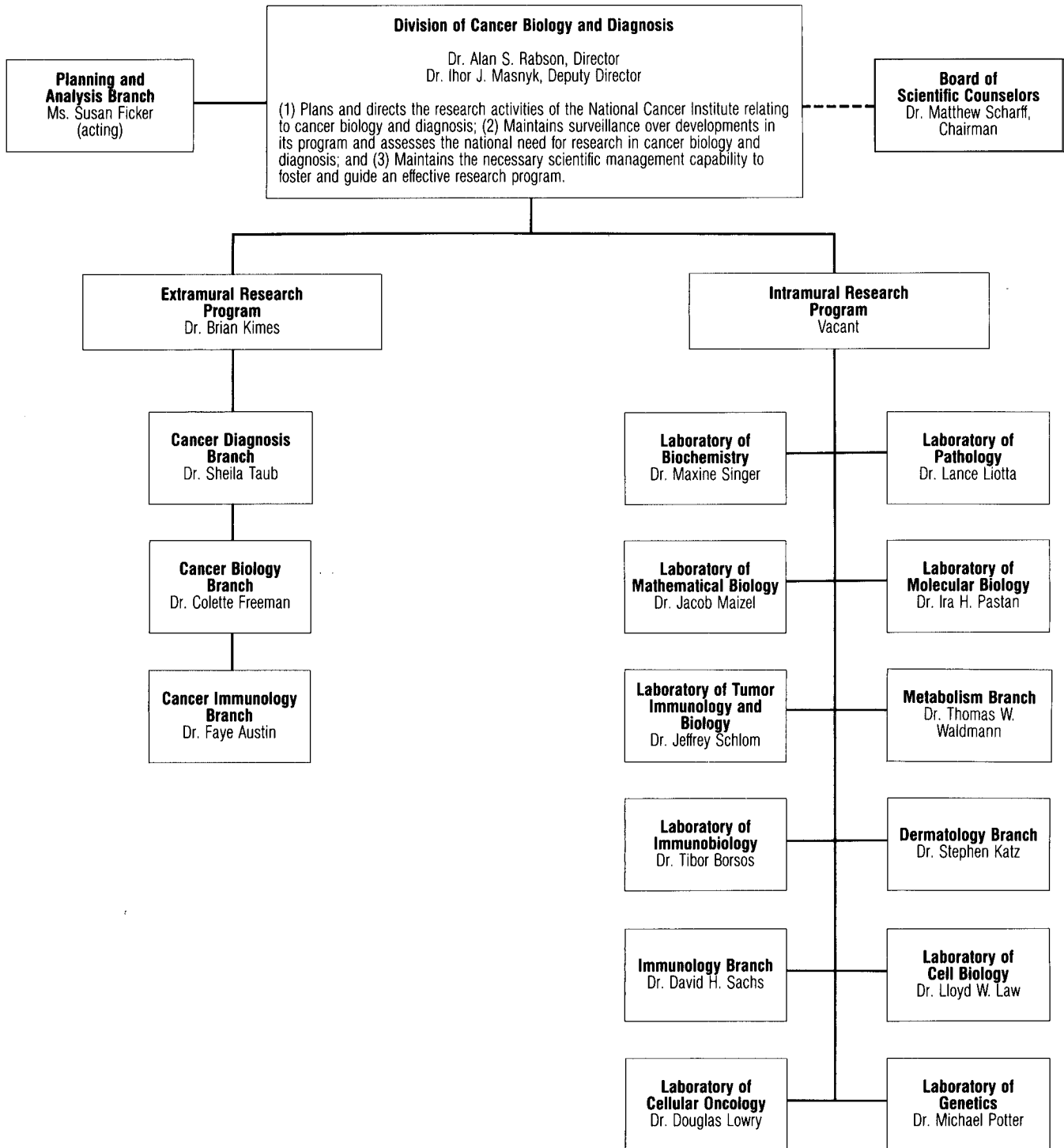


**Office of the Director**  
 Dr. Vincent T. DeVita, Jr., Director  
 Dr. Peter Fischinger, Deputy Director

(1) Serves as the focal point for the National Cancer Program; (2) Develops a National Cancer Plan and monitors implementation of the Plan; (3) Directs and coordinates the Institute's programs and activities; and (4) Develops and provides policy guidance and staff direction to the Institute's programs in areas such as program coordination, program planning, clinical care and administrative management.

**EEO Manager**  
 Ms. Maxine I. Richardson







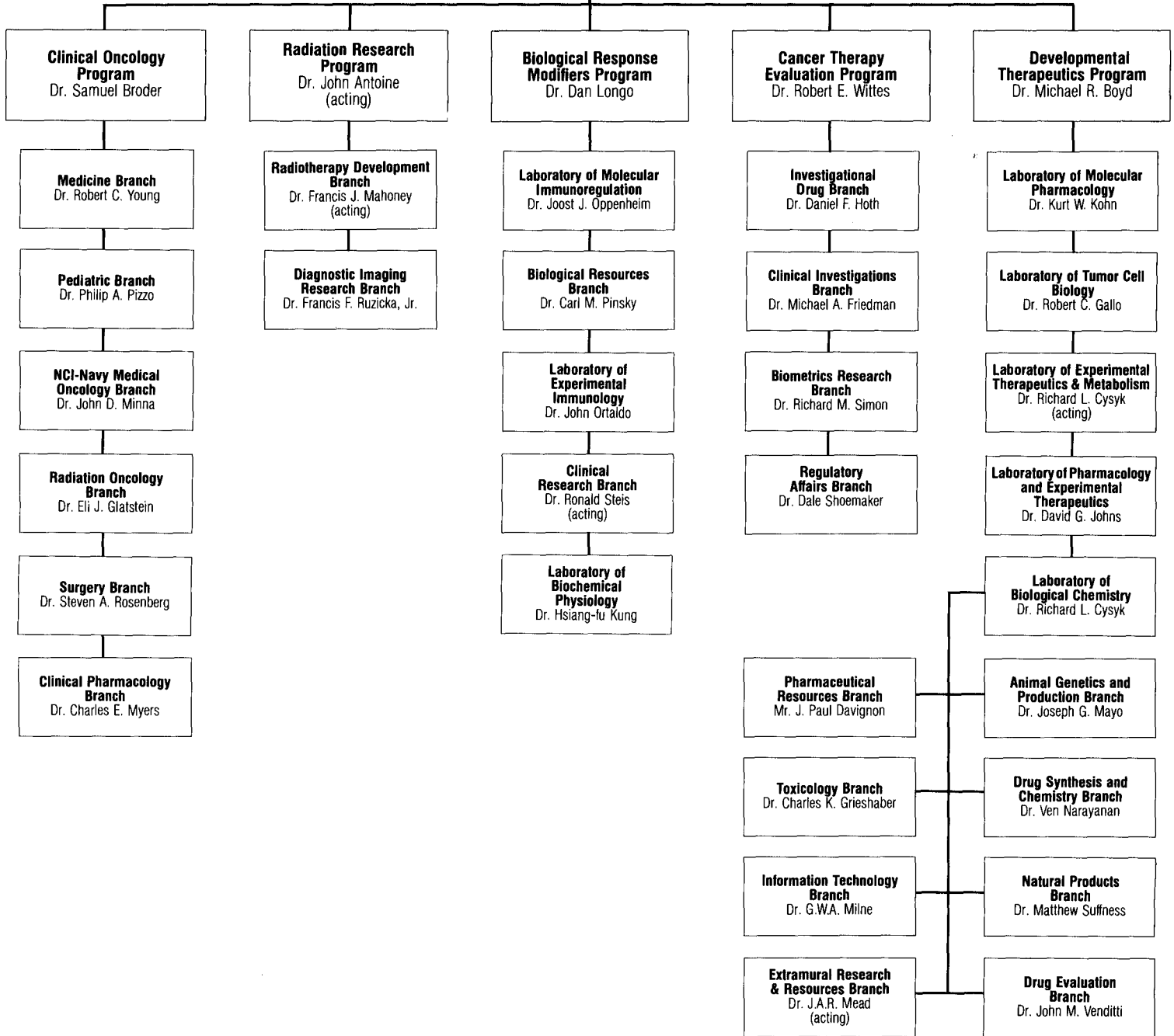
**Division of Cancer Treatment**

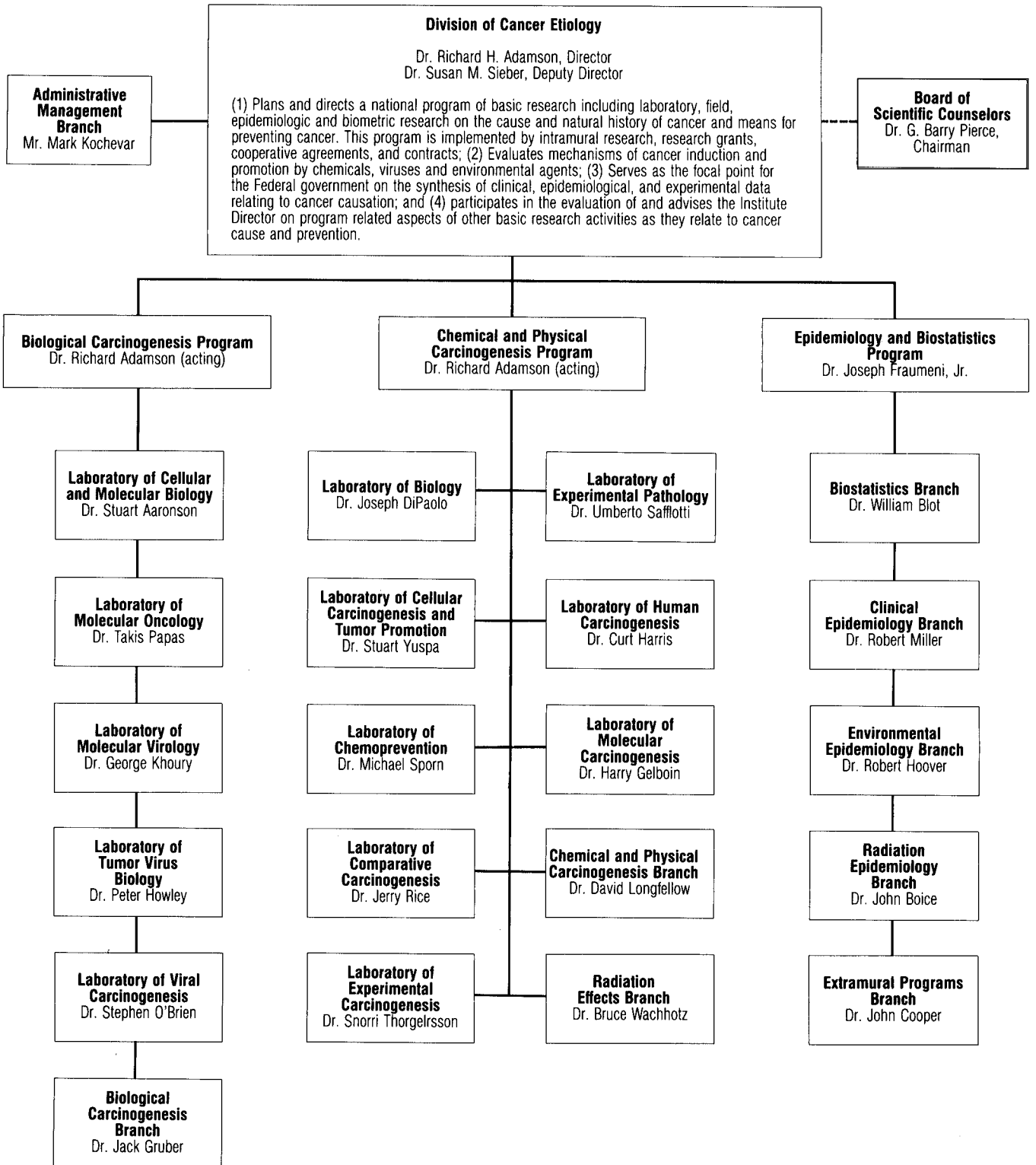
Dr. Bruce Chabner, Director  
Dr. Gergory Curt, Deputy Director

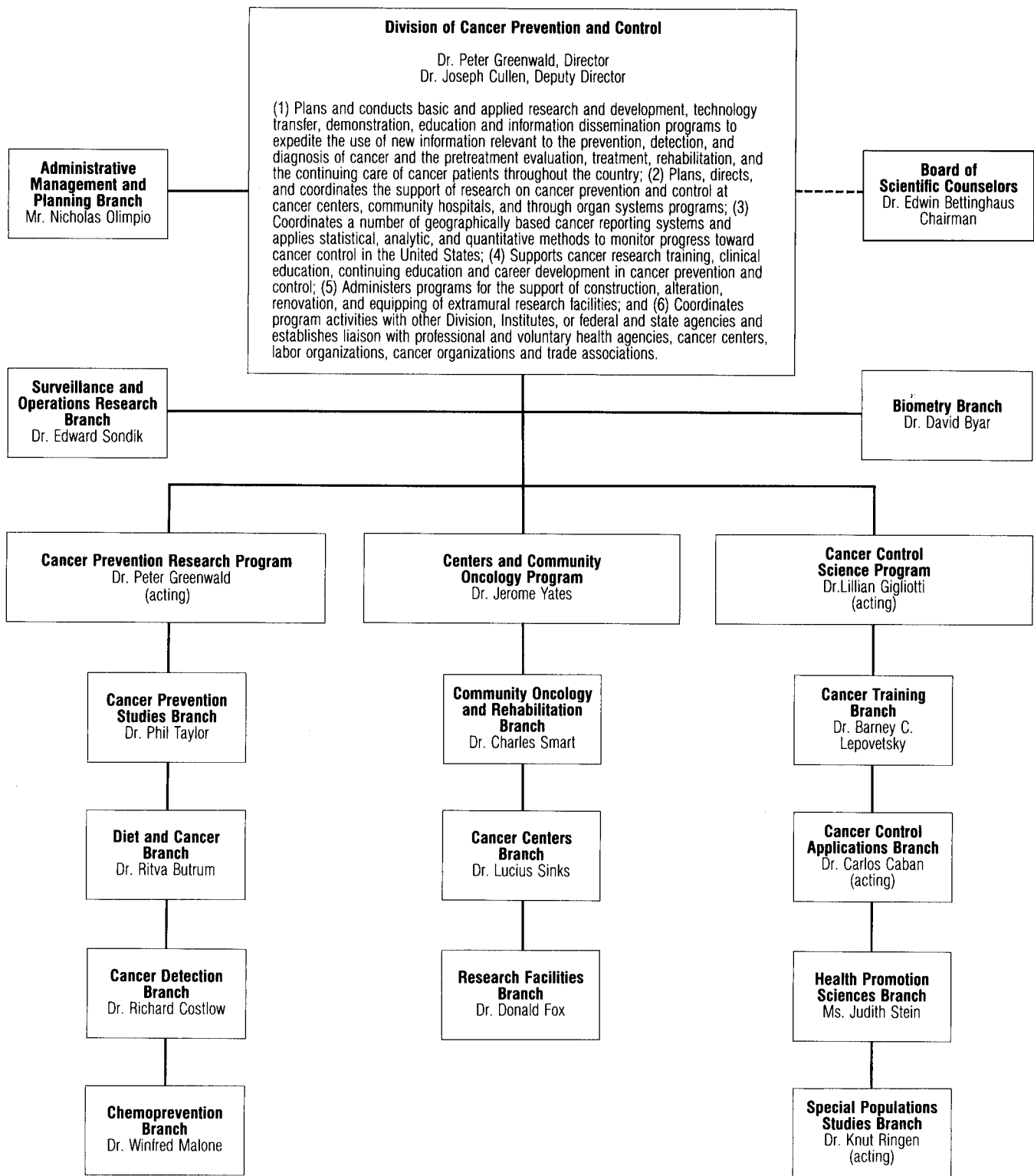
**Administrative Management and Planning Branch**  
Mr. Donald Christoferson

(1) Plans, directs and coordinates an integrated program of intramural and extramural preclinical and clinical cancer treatment research as well as research conducted in cooperation with other federal agencies with the objective of curing or controlling cancer in man by utilizing treatment modalities singly or in combination; (2) Administers targeted research and development programs in areas of drug development, biological response modifiers and radiotherapy development; and (3) Serves as the national focal point for information and data on experimental and clinical studies related to cancer treatment and for the distribution of such information to appropriate scientists and physicians.

**Board of Scientific Counselors**  
Dr. Paul Calabresi



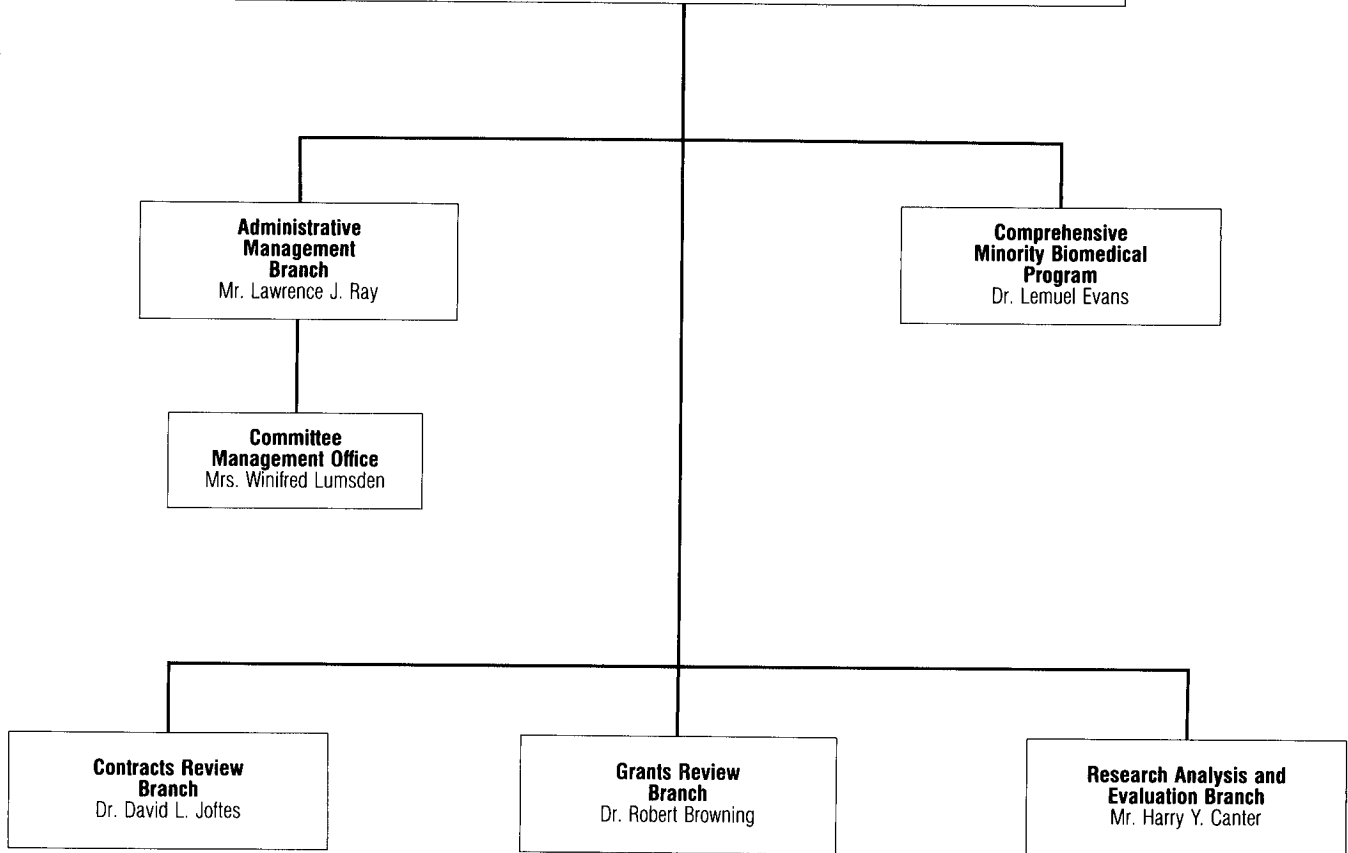




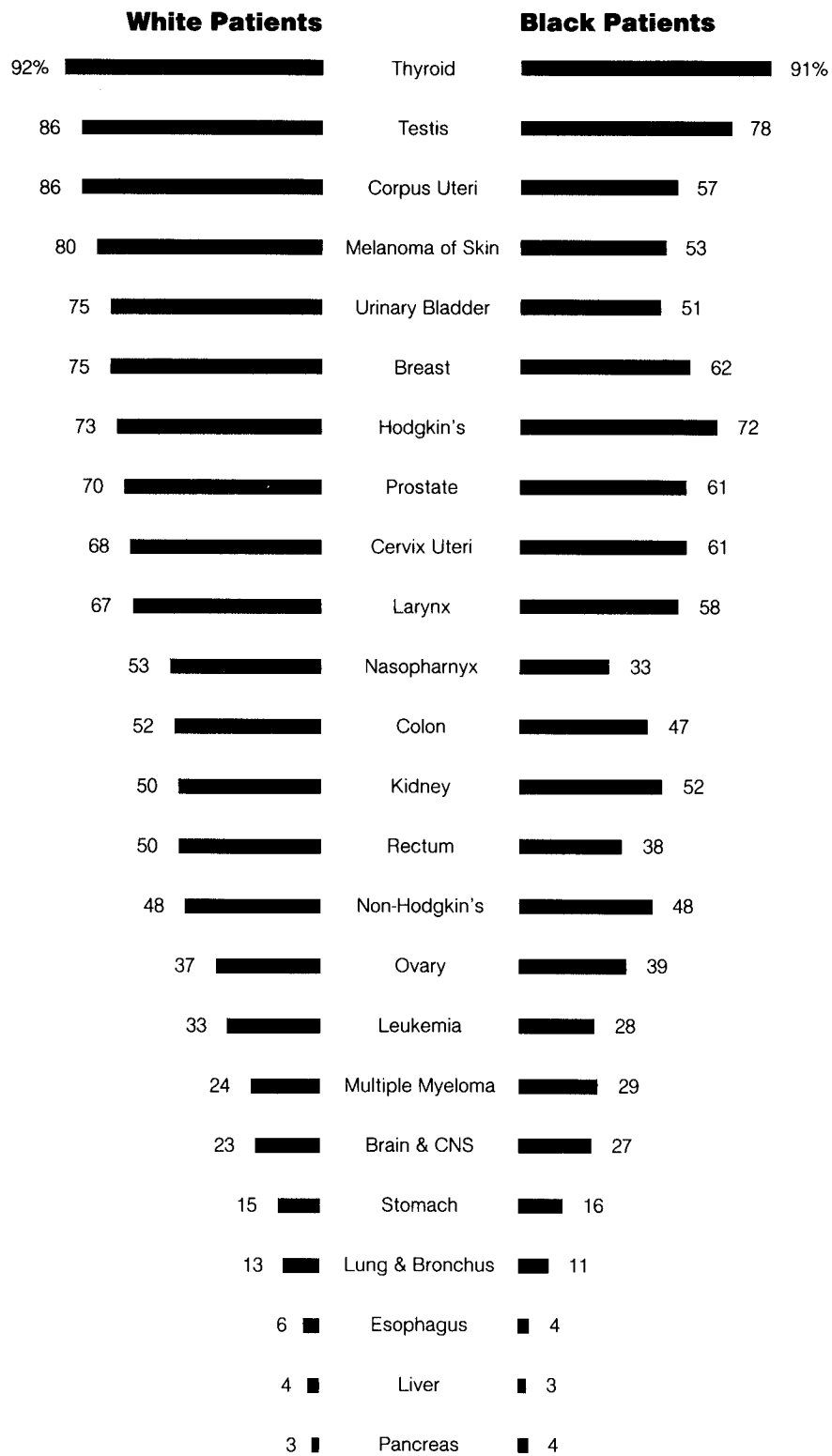
**Division of Extramural Activities**

Mrs. Barbara S. Bynum, Director  
Dr. Paul C. Rambaut, Deputy Director

(1) Administers and directs the Institute's grant and contract review and processing activities; (2) Provides initial technical and scientific merit review of grants and contracts for the Institute; (3) Represents the Institute on overall NIH extramural and collaborative program policy committees, coordinates such policy within NCI, and develops and recommends NCI policies and procedures as related to the review of grants and contracts; (4) Coordinates the Institute's review of research grant and training programs with the National Cancer Advisory Board; (5) Coordinates the implementation of committee management policies within the Institute and provides the Institute's staff support for the National Cancer Advisory Board; (6) Coordinates program planning and evaluation in the extramural area; (7) Provides scientific reports and analyses to the Institute's grant and contract programs; and (8) Coordinates and administers the Institute's participation in minority research and training efforts.



**Survival Rates by  
Cancer Site:  
White and Black Patients**



Source: Five-Year Relative Survival Rates (Male and Female)  
(Data from SEER Program 1974-83)

## Number of Deaths for the Five Leading Cancer Sites by Age Group and Sex—1983

All Ages		Under 15		15-34		35-54		55-74		75+	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Lung 80,235	Breast 37,977	Leukemia 448	Leukemia 332	Leukemia 764	Breast 676	Lung 9,159	Breast 7,770	Lung 51,619	Lung 21,725	Lung 19,296	Colon & Rectum 13,951
Colon & Rectum 27,487	Lung 34,616	Brain & CNS 253	Brain & CNS 201	Brain & CNS 449	Leukemia 473	Colon & Rectum 2,285	Lung 4,965	Colon & Rectum 14,582	Breast 19,432	Prostate 14,398	Breast 10,091
Prostate 24,954	Colon & Rectum 28,500	Endocrine 115	Endocrine 99	Non-Hodgkin's Lymphomas 373	Uterus 318	Brain & CNS 1,157	Colon & Rectum 1,931	Prostate 10,219	Colon & Rectum 12,444	Colon & Rectum 10,413	Lung 7,812
Pancreas 11,239	Pancreas 11,291	Non-Hodgkin's Lymphomas 96	Connective Tissue 48	Melanomas of Skin 301	Brain & CNS 304	Pancreas 1,153	Uterus 1,719	Pancreas 6,660	Ovary 6,235	Pancreas 3,434	Pancreas 5,028
Leukemia 9,425	Ovary 11,213	Connective Tissue 61	Bone 45	Hodgkin's Disease 284	Hodgkin's Disease 217	Leukemia 1,101	Ovary 1,693	Stomach 4,477	Pancreas 5,439	Bladder 3,366	Uterus 3,287

Source: Vital Statistics of the United States, 1983.

## Relationship of Cancer to Leading Causes of Death in the United States—1983

Rank	Cause of Death	Number of Deaths	Death Rate per 100,000 Population	Percent of Total Deaths
	<b>All CAUSES</b>	2,019,201	862.8	100.0
1	Diseases of Heart	770,432	329.2	38.2
2	CANCER	442,986	189.3	21.9
3	Stroke	155,598	66.5	7.7
4	Accidents	92,488	39.5	4.6
5	Bronchitis, Emphysema & Asthma	66,246	28.3	3.3
6	Pneumonia & Influenza	55,854	23.9	2.8
7	Diabetes Mellitus	36,246	15.5	1.8
8	Suicide	28,295	12.1	1.4
9	Cirrhosis of Liver	27,266	11.7	1.4
10	Arteriosclerosis	26,371	11.3	1.3
11	Homicide	20,191	8.6	1.0
12	Diseases of Infancy	19,310	8.3	1.0
13	Nephritis & Nephrosis	18,998	8.1	0.9
14	Septicemia & Pyemia	13,394	5.7	0.7
15	Congenital Abnormalities	13,173	5.6	0.6
	Other & Ill-defined	232,353	99.2	11.4

Source: National Center for Health Statistics, 1983.

## Estimated New Cancer Cases and Deaths by Sex for All Sites—1986\*

	Estimated New Cases			Estimated Deaths		
	Total	Male	Female	Total	Male	Female
<b>All Sites</b>	930,000*	465,000*	465,000*	472,000	253,500	218,500
<b>Buccal Cavity &amp; Pharynx (ORAL)</b>	29,500	19,800	9,700	9,400	6,350	3,050
Lip	4,600	4,000	600	175	150	25
Tongue	5,300	3,300	2,000	2,100	1,400	700
Mouth	10,700	6,300	4,400	2,825	1,800	1,025
Pharynx	8,900	6,200	2,700	4,300	3,000	1,300
<b>Digestive Organs</b>	217,800	110,700	107,100	119,700	62,500	57,200
Esophagus	9,300	6,600	2,700	8,800	6,400	2,400
Stomach	24,700	15,000	9,700	14,300	8,400	5,900
Small Intestine	2,200	1,100	1,100	800	400	400
Large Intestine } (COLON-RECTUM)	98,000	45,000	53,000	51,800	24,800	27,000
Rectum	42,000	22,000	20,000	8,200	4,300	3,900
Liver & Biliary Passages	13,600	6,800	6,800	10,600	5,300	5,300
Pancreas	25,500	13,000	12,500	24,000	12,300	11,700
Other & Unspecified Digestive	2,500	1,200	1,300	1,200	600	600
<b>Respiratory System</b>	164,500	112,300	52,200	135,350	93,000	42,350
Larynx	11,700	9,600	2,100	3,800	3,100	700
<b>LUNG</b>	149,000	100,000	49,000	130,100	89,000	41,100
Other & Unspecified Respiratory	3,800	2,700	1,100	1,450	900	550
<b>Bone</b>	2,000	1,100	900	1,400	800	600
<b>Connective Tissue</b>	5,100	2,700	2,400	2,800	1,300	1,500
<b>SKIN</b>	23,000**	12,000**	11,000**	7,500†	4,500	3,000
<b>BREAST</b>	123,900***	900***	123,000***	40,200	300	39,900
<b>Genital Organs</b>	169,800	96,400	73,400	49,400	27,000	22,400
Cervix, Uteri } (UTERUS)	14,000***	—	14,000***	6,800	—	6,800
Corpus, Endometrium	36,000	—	36,000	2,900	—	2,900
Ovary	19,000	—	19,000	11,600	—	11,600
Other & Unspecified Genital, Female	4,400	—	4,400	1,100	—	1,100
Prostate	90,000	90,000	—	26,100	26,100	—
Testis	5,100	5,100	—	500	500	—
Other & Unspecified Genital, Male	1,300	1,300	—	400	400	—
<b>Urinary Organs</b>	60,500	41,700	18,800	19,800	12,800	7,000
Bladder	40,500	29,000	11,500	10,600	7,200	3,400
Kidney & Other Urinary	20,000	12,700	7,300	9,200	5,600	3,600
<b>Eye</b>	1,800	900	900	400	200	200
<b>Brain &amp; Central Nervous System</b>	13,800	7,700	6,100	10,200	5,500	4,700
<b>Endocrine Glands</b>	11,700	3,500	8,200	1,750	750	1,000
Thyroid	10,600	2,900	7,700	1,100	400	700
Other Endocrine	1,100	600	500	650	350	300
<b>Leukemias</b>	25,600	14,000	11,600	17,400	9,600	7,800
Lymphocytic Leukemia	12,300	6,900	5,400	6,600	3,800	2,800
Granulocytic Leukemia	12,600	6,700	5,900	10,400	5,600	4,800
Monocytic Leukemia	700	400	300	400	200	200
<b>Other Blood &amp; Lymph Tissues</b>	44,500	22,800	21,700	23,700	12,300	11,400
Hodgkin's Disease	6,900	3,900	3,000	1,500	900	600
Multiple Myeloma	10,400	5,200	5,200	7,600	3,900	3,700
Other Lymphomas	27,200	13,700	13,500	14,600	7,500	7,100
<b>All Other &amp; Unspecified Sites</b>	36,500	18,500	18,000	33,000	16,600	16,400

NOTE: The estimates of new cancer cases are offered as a rough guide and should not be regarded as definitive. Especially note that year-to-year changes may only represent improvements in the basic data.

\* Carcinoma in situ and non-melanoma skin cancers are not included in totals. Carcinoma in situ of the uterine cervix accounts for more than 45,000 new cases annually, and carcinoma in situ of the female breast accounts for more than 5,000 new cases annually. Non-melanoma skin cancer accounts for more than 400,000 new cases annually.

\*\* Melanoma only.

\*\*\* Invasive cancer only.

† Melanoma 5,600; other skin 1,900

INCIDENCE ESTIMATES ARE BASED ON RATES FROM NCI SEER PROGRAM 1977-1981

## NCI Intramural Review Process

<b>Step 1</b> Scheduling and Approval	<b>Step 2</b> Team Selection	<b>Step 3</b> Preparation for Site Visit	<b>Step 4</b> Site Visit	<b>Step 5</b> Site Visit Report and Recommendations	<b>Step 6</b> Implementation of Recommendations	<b>Step 7</b> Follow-up Report
<b>Board of Scientific Counselors</b>  BSC Approves Site Visit Schedule	Chairman, BSC Selects Site Visit Chairman  Site Visit Chairman Selects Site Visit Team	BSC Site Visit Team Reviews Material Prepared by Division	BSC Site Visit Team Inspects and Reviews Laboratory	Site Visit Team Prepares Report and BSC Presents Recommendations to the Division Director		
<b>NCI Divisions</b>  Division Prepares Proposed Site Visit Schedule		Division Prepares Background Material on Laboratory to be Site Visited and Sends to Site Visit Team	Site Visit Preparation by Laboratory		Division Implements Recommendations Contained in Site Visit Report	Division Prepares Report to BSC on Actions Taken



# Research Positions at the National Cancer Institute<sup>1</sup>

The National Cancer Institute recognizes that one of the most valuable resources to be drawn upon in the fight against cancer is the wealth of scientific talent available in the U.S. and around the world. In an effort to attract and maintain the highest quality scientific staff, two personnel systems are used: the U.S. Civil Service System and the PHS Commissioned Corps. In addition, the Staff Fellowship Program and the NIH Visiting Program have been designed to meet special needs. Other special programs are available for those who qualify.

Position	Eligibility	Annual Salary	Mechanism of Entry
<b>I. Civil Service</b>			
A. Civil Service (tenured)	Appropriate advanced education, experience and knowledge needed by NCI to conduct its programs.	Minimum starting: Ph.D.—\$37,599 Physicians—\$50,822 Maximum: \$68,700	Office of Personnel Management, Contact Director or Laboratory Chief in area of interest or the NCI Personnel Office.
<b>II. Special Appointment of Experts and Consultants</b>			
A. Special Appointment of Experts and Consultants (non-tenured appointment which can be extended up to 4 years).	Applicants shall possess outstanding experience and ability as to justify recognition as authorities in their particular fields of activity.	Equivalent to the salary range of GS-13 and above—Maximum \$68,700	Recommendation by Division Directors. Final approval rests with the Director, NCI.
<b>III. Medical Staff Fellows</b>			
A. Medical Staff Fellows	Appointment for 2 or 3 years with an additional 1-year extension for an initial 2-year appointment. Graduate of accredited medical or osteopathic school and completion of internship. Completion of 2 or 3 years of clinical training beyond the M.D. degree and demonstrated outstanding ability to conduct successfully, preestablished programs in both clinical and laboratory research.	\$30,000-\$34,000	Apply to the Medical Staff Fellowship Program Office, National Institutes of Health, Clinical Center, Building 10, Room 2N226, Bethesda, MD 20892
B. Medical Staff Fellows in Pharmacology (PRAT Fellows). For physicians committed to research careers in pharmacological sciences, or clinical pharmacology.	Appointment for 2 or 3 years with an additional 1-year extension for an initial 2-year appointment. Graduate of accredited medical or osteopathic school and completion of internship. Completion of 2 or 3 years of clinical training beyond the M.D. degree and demonstrated outstanding ability to conduct successfully, preestablished programs in both clinical and laboratory research.	\$30,000-\$34,000	Apply to the Medical Staff Fellowship Program Office, National Institutes of Health, Clinical Center, Building 10, Room 2N226, Bethesda, MD 20892
<b>IV. Visiting Program (limited tenure)<sup>2</sup></b>			
A. Visiting Fellow (maximum 3 years)	1-3 years postdoctoral experience or training.	Entrance stipend \$16,000-18,000	Contact Director or Laboratory Chief in area of interest.
B. Visiting Associate (1 year with renewals to end of project)	3+ years postdoctoral experience or training with appropriate knowledge needed by NCI.	\$21,804-\$41,105	Contact Director or Laboratory Chief in area of interest.
C. Visiting Scientist (duration of project)	6+ years postdoctoral experience with appropriate unusual experience and knowledge needed.	\$31,619-\$68,700	Contact Director or Laboratory Chief in area of interest.
B. Biotechnology Fellow	Physicians with little or no experience or training in fundamental research, but with an interest in biotechnology including its application to prevention and new treatment and diagnostic techniques, would be eligible.	First year Ph.D.—\$18,000 to \$28,000 Physicians—\$26,000 to \$32,000	Contact Division Director or Laboratory Chief in area of interest.

(continued on next page)

<sup>1</sup>Does not necessarily indicate that positions are currently available at the National Cancer Institute.

<sup>2</sup>Under most circumstances, the various visiting programs are limited to non-citizens.

Position	Eligibility	Annual Salary	Mechanism of Entry
<b>IV. Visiting Program (limited tenure)<sup>2</sup></b>			
<i>(continued)</i>			
	Ph.D. scientists with little or no experience or training in clinically related programs, but with an interest in clinical applications of fundamental research methodology related to biotechnology would also be eligible. Typically, these candidates will have less than three years post-doctoral experience. The Biotechnology Training Program is established for United States citizens, or resident aliens who will be eligible for U.S. citizenship within four years.		
C. Nurse Trainee	Applications will be accepted from graduates of NLN accredited baccalaureate nursing programs. Each candidate must submit academic transcripts demonstrating a minimum of a "B" average in undergraduate work, three references regarding their academic and clinical capability, a letter describing their interest in the program, and a Personal Qualification Statement, SF-171. The program is also available to all new graduate applicants to the Cancer Nursing Service; some may not be aware of the program prior to their contact with Clinical Center.	Stipends for the program will be \$1,300 per month.	Contact the Division of Cancer Treatment.
D. Summer Training Program	The review and selection of candidates, as well as the day-to-day administration of the fellowships, will be the responsibility of each Division's Administrative Office. Must be bona-fide high school, college, medical school, or graduate students. Must be 16 years of age, must have a cumulative GPA of 2.75 or above, must be either a U.S. Citizen or resident alien.	Stipends will be paid at the rate of \$1,000 per month (\$2,000 total) for a period of 2 months.	Contact Division Director or Laboratory Chief in area of interest.
E. Special Volunteer Program	Volunteer service may be accepted for direct patient care, clerical assignments, technical assistance, or any other activities necessary to carry out the authorized functions of the NCI. Applicants must be at least 16 years of age.	N/A	Contact the NCI Personnel Office.
<b>V. Staff Fellowships</b>			
A. Staff Fellowship	Physician or other doctoral degree equivalent awarded within last 5 years and who has less than 7 years of relevant research experience, U.S. citizen or non-citizen eligible for naturalization within 4 years. Maximum 7 year appointment.	Staff Fellows Physicians \$20,688-\$34,312 Other Doctorates \$17,000-\$36,889 Senior Staff Fellows Physicians \$23,439-\$47,788 Other Doctorates \$20,688-\$41,358	Contact Director or Laboratory Chief in area of interest or the NCI Personnel Office.
<b>VI. Civil Service Summer Employment Programs</b>			
A. Summer Clerical Program	Must be 18 years of age or older (16 if high school graduate).	GS-1 through GS-4 Grade is based on education and/or experience.	Apply to NIH on or before March 15.
B. Summer Undergraduate Program	Students majoring in biological and/or physical sciences or related field, or applicants with appropriate experience.	GS-1 through GS-4 Grade is based on education and/or experience.	Apply to NIH by March 15.

<b>Position</b>	<b>Eligibility</b>	<b>Annual Salary</b>	<b>Mechanism of Entry</b>
C. Summer Graduate Program	College graduate, graduate student, planning to attend graduate school, faculty member, or equivalent experience and/or education.	GS-5 through GS-12 For some occupations superior scholastic work may qualify for a higher grade level.	Apply to NIH by March 15.
D. Summer Employment for Needy Youth	Educationally and economically disadvantaged youths in their formative years (must have reached 16th birthday).	Federal minimum wage.	Register with the local office of the State Employment service and apply to NIH.
E. Stay-in-School Program	Economically disadvantaged students who are attending accredited schools on a full-time or substantially full-time basis, and are in good academic standing. (Must have reached 16th birthday)	Salary is commensurate with duties assigned and student's education and/or experience.	Apply to NIH. No deadline required for applying. However, no new appointments are made between May 1 to August 30.
F. The Federal Junior Fellowship Program	Graduating high school senior in a public or private school in the Metro. Wash., D.C. area. Must be in upper 10% of graduating class, have applied for admission to an accredited college or university and need financial assistance to attend school.	GS-1 through GS-4	Nominations are submitted directly to the Office of Personnel Management by high school principals or counselors.

#### **VII. Special Programs**

A. Guest Researcher sponsored by organization other than NIH, PHS.	Determined by sponsoring organization.	Established by sponsoring organization.	Contact Director or Laboratory Chief in area of interest; also apply to sponsoring agency, e.g., American Cancer Society, Eleanor Roosevelt Cancer Foundation, Leukemia Society of America, Inc., etc.
B. COSTEP Program (operates year-round) Maximum 120 days per 12-month period.	U.S. Citizen. Must have completed one year of study in a medical, dental or veterinary school; or a minimum of two years of baccalaureate program in a health-related field such as engineering, nursing, pharmacy, etc. May be enrolled in a master's or doctoral program in a health-related field (designated by the Assistant Secretary for Health). Physical requirements of PHS Commissioned Corps. Plans to return to college.	Pay and allowance of a Junior Assistant Health Service Officer.	Apply to COSTEP, Commissioned Personnel Operations Division, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857
C. Fogarty International Scholars in Residence Program.	International reputation, productivity, demonstrated ability in biomedical field.	\$60,000 for 1 year.	Recommendation to Fogarty Center by Institute Director or any senior tenured member of the NIH scientific staff.

#### **VIII. Other Training Programs**

A. Cancer Control Science Associates (Three-year non-tenured Civil Service Position)	1) M.D./D.O., or accredited doctoral degree in an allied or public health profession, biomedical behavioral, or social science, or equivalent; 2) academic professional excellence supported by official transcripts; and four letters of reference; and 3) United States citizenship or meet one of the provisions which allow for the hiring of non-U.S. citizens. Information regarding the hiring of non-citizens may be obtained by calling the NCI Personnel Office.	First year for an M.D./D.O. or Ph.D. —\$31,044 or \$26,381 per annum respectively.	Program Coordinator, CCSAP NIH/NCI/DCPC/CCAB, Blair Building, Room 4A01, Bethesda, Maryland 20892.
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## **Special Training Mechanisms: Fiscal Year 1985**

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### **Biotechnology Training Program**

#### *Why Needed:*

- To provide training in fundamental sciences and clinical disciplines for physicians and Ph.D. scientists.
- To enhance cancer clinical programs through the rapid transfer and application of new techniques and fundamental knowledge leading to state-of-the-art prevention, diagnosis and treatment of cancer.
- To maintain a significant level of support for training in those disciplines related to biotechnology.

#### **Program Provisions:**

- Training assignments in modern biotechnology will emphasize the application of recombinant DNA and hybridoma technology to cancer clinical programs; emphasis also is in the areas of nutrition, clinical pharmacology, viral oncology, and biochemical and clinical epidemiology as clinical disciplines.
- The program is supervised by the Senior Scientific Coordinating Committee (the Executive Committee is currently serving in this role).
- Each candidate will have a training plan. Candidates and training plans will be approved by the Division Director and SSCC.
- Fellowships are from six months to two years, with the potential for an extension of up to a maximum of three years.
- Fellowships are not subject to employment ceilings and there are no service/payback provisions.
- The program is limited to citizens or resident aliens eligible for citizenship.
- Candidates may apply to the NCI laboratory or branch that offers a program that best meets their training needs.

### **Cancer Prevention Fellowship Program**

#### *Why Needed:*

- To increase the number of scientists highly qualified to conduct cancer prevention and control intervention research in order to fully realize the potential for major reductions in cancer rates. This is in keeping with NCI's year 2000 goal.

#### **Program Provisions:**

- Allows for doctoral level scientists from a variety of academic disciplines to be exposed to a number of educational experiences in cancer prevention and control.
- Fellows spend the first four months of their three-year program in an academic course that covers all aspects of cancer prevention and control. For the next 20 months participants are assigned to one of the Division's operational branches where they engage in specific research projects and also receive exposure to the daily management and administration of federal research programs. For the last 12 months, Fellows are assigned to a field research project at either a cancer center, major NCI research grantee/contractor, or a public health department.
- Interested candidates may apply to Ms. Nancy Gardner, Division of Cancer Prevention and Control.

### **Cancer Nurse Training Program**

#### *Why Needed:*

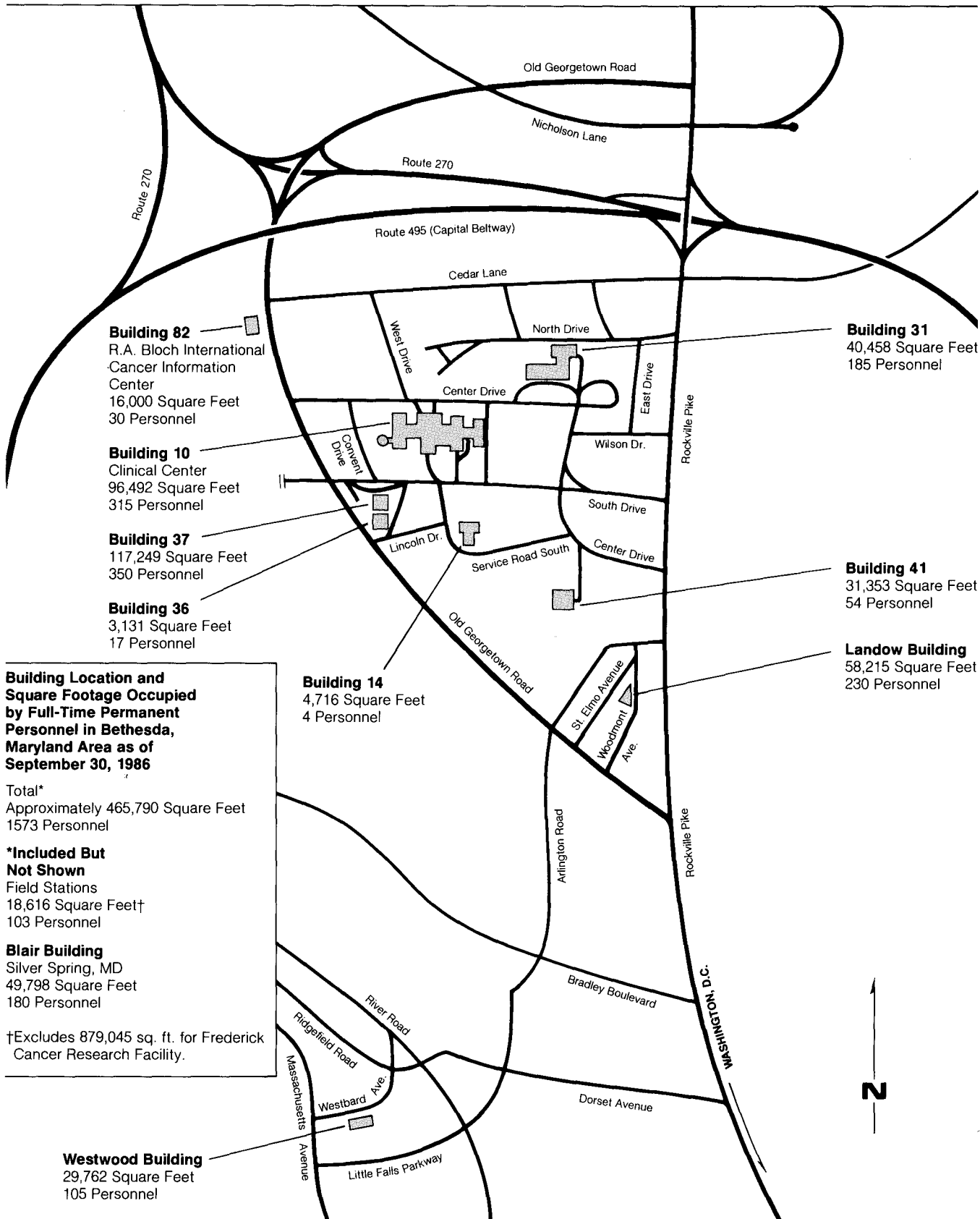
- To offer a comprehensive perspective on current oncology practice and its implications in nursing.
- To meet the special needs of cancer patients and their families which demand a high level of nursing practices in meeting both the physical and psychological requirements of the patients.

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**Program Provisions:**

- The program is offered as a clinical traineeship in oncology to new nursing graduates.
- Traineeships are nine months in duration emphasizing both theoretical and practical aspects of cancer nursing and including classroom instruction as well as on-the-job training.
- The program is planning on a class of 12 to 16 trainees beginning each September.
- The curriculum will cover philosophy of cancer nursing, pathophysiology of cancer, epidemiology, diagnosis and staging, prevention/detection, psychosocial needs of the cancer patient and family, the child with cancer, current treatment modalities, specific cancers/major sites/current research, cancer nursing research, and issues in cancer care such as ambulatory care, use of current technology, aging, ethical dilemmas, costs of care, and hospice program.
- Candidates may apply to the Nurse Recruiter, Department of Nursing and will be reviewed and selected by a Candidate Selection Committee. Final approval is by the Director, DCT.



**Building 82**  
 R.A. Bloch International  
 Cancer Information  
 Center  
 16,000 Square Feet  
 30 Personnel

**Building 10**  
 Clinical Center  
 96,492 Square Feet  
 315 Personnel

**Building 37**  
 117,249 Square Feet  
 350 Personnel

**Building 36**  
 3,131 Square Feet  
 17 Personnel

**Building 14**  
 4,716 Square Feet  
 4 Personnel

**Building 31**  
 40,458 Square Feet  
 185 Personnel

**Building 41**  
 31,353 Square Feet  
 54 Personnel

**Landow Building**  
 58,215 Square Feet  
 230 Personnel

**Building Location and  
 Square Footage Occupied  
 by Full-Time Permanent  
 Personnel in Bethesda,  
 Maryland Area as of  
 September 30, 1986**

Total\*  
 Approximately 465,790 Square Feet  
 1573 Personnel

**\*Included But  
 Not Shown**  
 Field Stations  
 18,616 Square Feet†  
 103 Personnel

**Blair Building**  
 Silver Spring, MD  
 49,798 Square Feet  
 180 Personnel

†Excludes 879,045 sq. ft. for Frederick  
 Cancer Research Facility.

**Westwood Building**  
 29,762 Square Feet  
 105 Personnel



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## **Cancer Research Gift Fund**

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The National Cancer Institute receives donations from the general public in support of its research mission through the Gift Fund. Originally authorized by the National Cancer Act of 1971, this authority was again renewed under the auspices of the Health Research Extension Act of 1985. Contributions to the NCI Gift Fund are used for a variety of worthwhile projects. Examples include special training fellowships for young scientists, the purchase of laboratory equipment, workshops and conferences on cancer research, and the publication of pamphlets about cancer for distribution to the general public. Recently, the Institute received donations that will be used in support of the following projects:

### **Breast Cancer Study Group**

In 1986, Mr. Leonard Abramson, the President of United States Health Care Systems, Inc., Blue Bell, Pennsylvania, donated funds to support breast cancer research. As a result of this donation, a confederation of outstanding researchers has been formed under the leadership of Dr. Marc Lippman, Head of the Breast Cancer Section, NCI.

The Breast Cancer Study Group is comprised of physicians and scientists from within the National Institutes of Health and will focus its attention on bringing some of the exciting new work in breast cancer research from the level of molecular biology to testing in clinical trials and, if proven beneficial, to eventual widespread application as new treatment methodology.

### **Adoptive Immunotherapy**

Dr. Armand Hammer, Chief Executive Officer, Occidental Petroleum Corporation, has donated funds in support of the research efforts of Dr. Steven Rosenberg, the Chief of the Surgery Branch, NCI. The donation will aid in supporting investigations into a new form of treatment called adoptive immunotherapy. This technique uses the patients' own white blood cells that have been treated with the growth factor Interleukin 2 (IL-2) to transform them into Lymphokine Activated Killer (LAK) cells. Cells are then transfused back into the patient along with additional doses of IL-2.

Adoptive immunotherapy has shown activity against drug resistant cancers of the kidney, malignant melanoma, and colon cancer. In addition, it has also been discovered that when white blood cells are isolated directly from patient tumor specimens, these so-called "tumor infiltrating lymphocytes" are up to 100 times more effective at specifically killing cancer cells than those taken from the patients' peripheral blood. These research findings represent an entirely new approach to cancer treatment and will continue to be actively pursued.

## Major Steps in the Budget Formulation Review Process

	January	February	March	April	May	June	July	August	September	October	November	December
<b>NCI STAFF<sup>1</sup></b>	NCI Director's Meeting—establish budget policy for upcoming fiscal year; review operating plans for current fiscal year  Submit Congressional Justification for next fiscal year		Formulation of Preliminary Budget for two years in the future for both the By-Pass budget, which is submitted directly to the President, and the budget submitted within the Administration's guidelines  Congressional testimony by Director, NCI			NCI Director's Meeting—establish specific division levels for upcoming fiscal year		Formulation of By-Pass Budget  Formulation of budget within Administration guidelines		Formulation of President's Budget		
<b>NCAB<sup>2</sup></b>					Review and revise Preliminary Budget for two fiscal years in future			Review By-Pass Budget Submitted Directly to President		Division presentations of program activity for fiscal year just completed		
<b>BSC<sup>3</sup></b>	Review operating plans for current fiscal year and policies from NCI Director's Meeting					Review and advise on implementation of divisional programs				Annual Division Budget Review current and upcoming year		

<sup>1</sup>Executive Committee and key administrative staff

<sup>2</sup>National Cancer Advisory Board—presidential appointees

<sup>3</sup>Board of Scientific Counselors—outside NCI peer review bodies for each of four operating divisions



**NCI Budget—  
Fiscal Year 1986**

**A. Actual Obligations Resulting From Appropriated Funds**

FY 1986 Appropriation	\$1,258,159
<b>Plus:</b>	
• Grants Carried Forward from FY 1985	3,714
• St. George, Utah, Screening Clinic (2nd and final year of current authority)	3,000
• Cancer Centers Supplement	6,000
<b>Less:</b>	
• Administrative Reduction	-922
• Consultant Services Reduction	-1,090
• Transfer to Departmental Management for Mary Babb Randolph Cancer Center	-4,500
• Gramm-Rudman Sequestration	-53,868
• Lapse	-209
<hr/>	
Subtotal, Actual NCI Obligations	\$1,210,284

**B. Reimbursible Obligations**

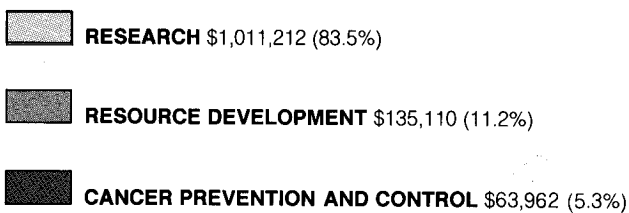
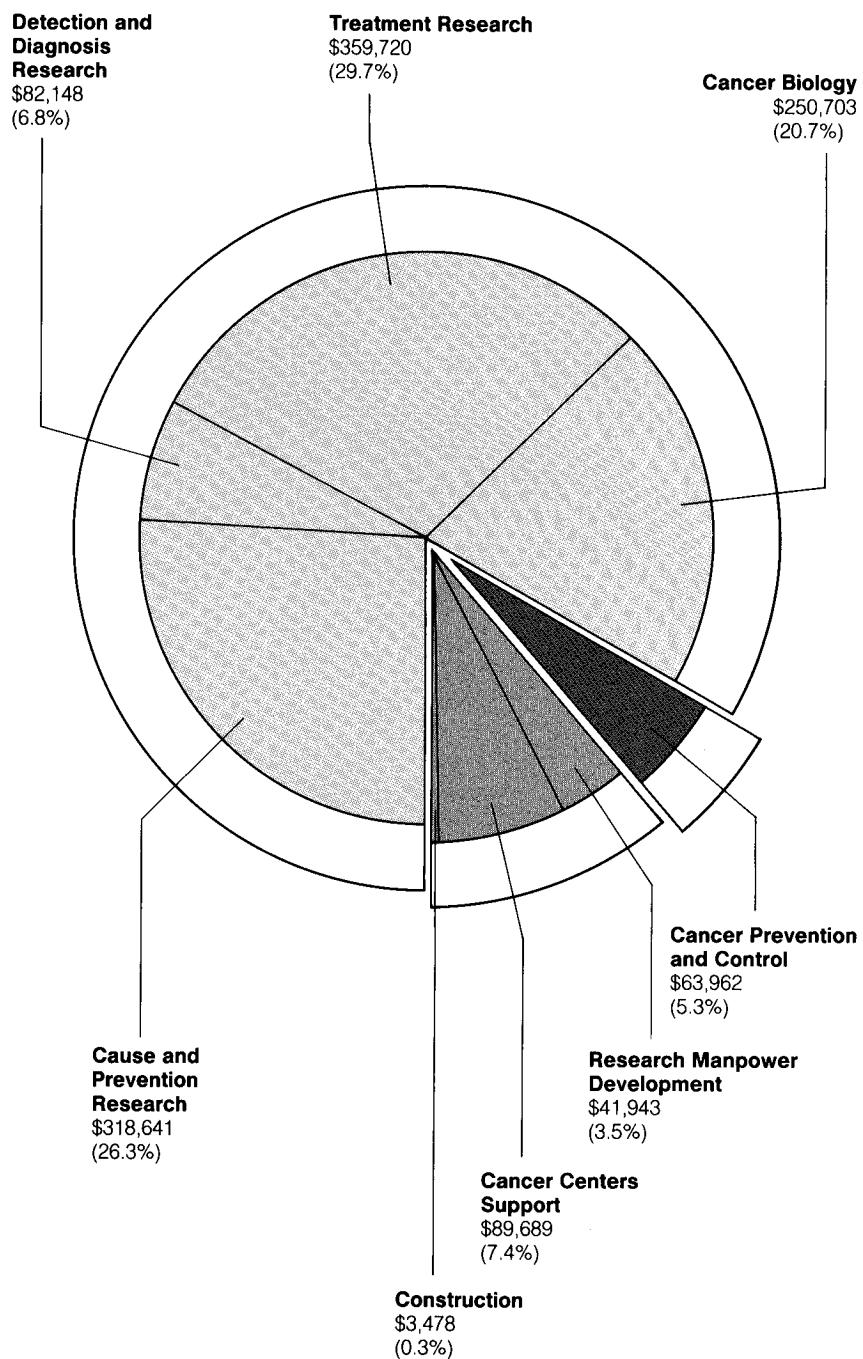
<b>Major Components:</b>	
• Acquired Immune Deficiency Syndrome (AIDS)	
Source of Funds:	
Office of the Director, NIH	\$17,832
Department of the Army	860
• Academic Research Enhancements Award	1,129
From Office of Director, NIH	
Other Reimbursements	1,155
<hr/>	
Subtotal, Reimbursements	\$20,976

**C. Total Obligations** **\$1,231,260**

**NCI Program Structure  
—Fiscal Year 1986**

(Dollars in Thousands)

**TOTAL DOLLARS**  
\$1,210,284

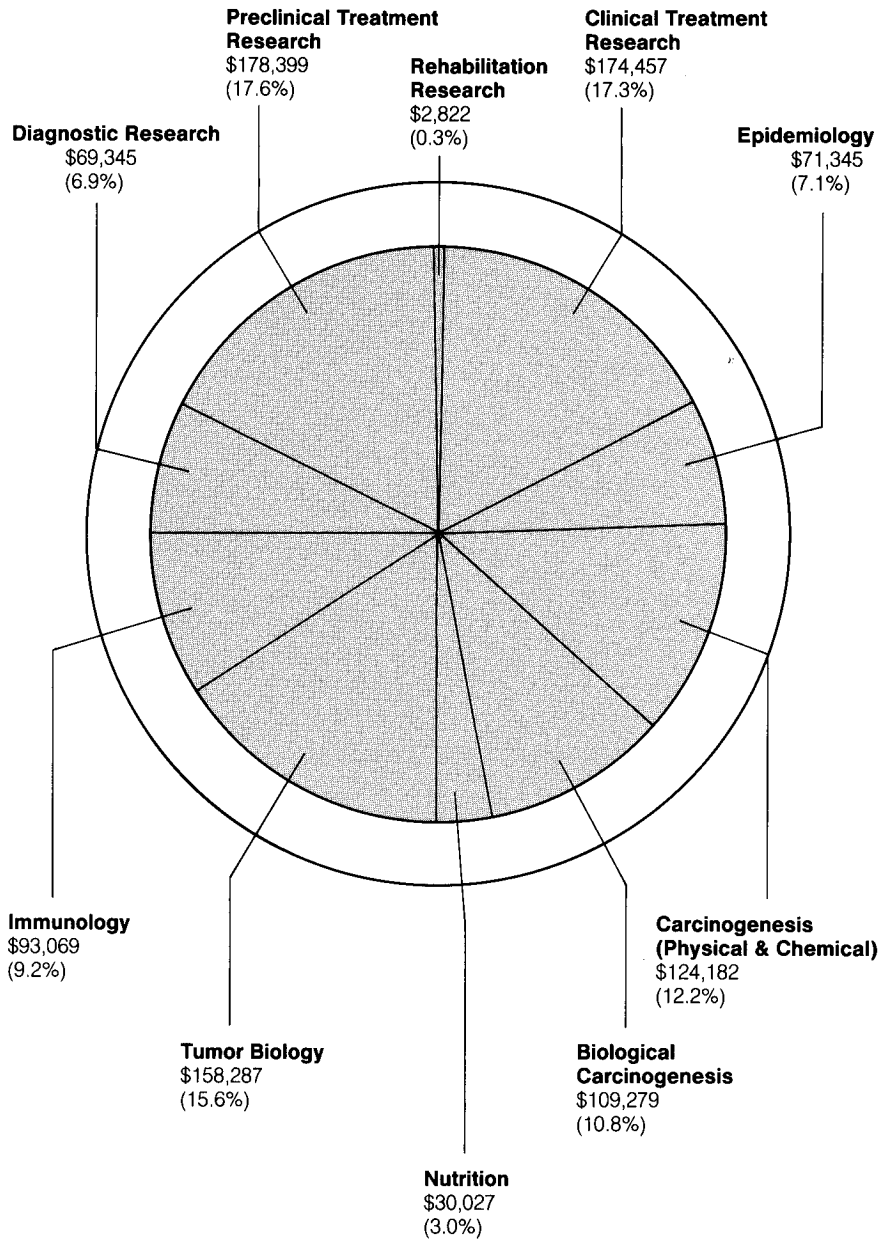


**NCI Research Programs  
—Fiscal Year 1986**

(Dollars in Thousands)

**TOTAL RESEARCH  
PROGRAM DOLLARS**  
\$1,011,212

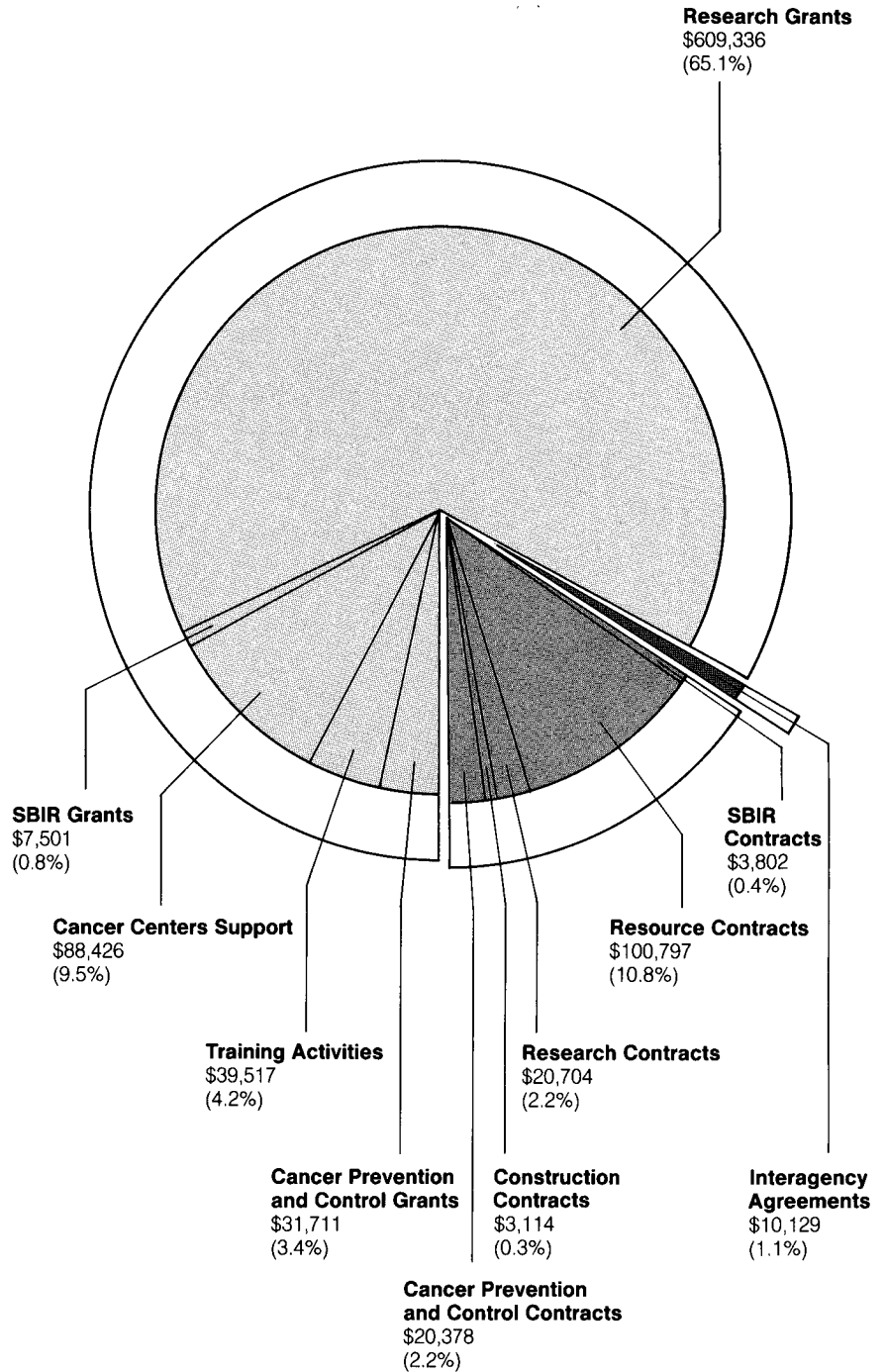
Research Programs	Dollars	Percent of Total
Research Programs	\$1,011,212	83.5
Resource Development		
Cancer Centers	89,689	7.4
Support		
Research		
Manpower	41,943	3.5
Development	3,478	0.3
Construction		
Cancer Prevention and Control	63,962	5.3
<b>Total NCI</b>	<b>\$1,210,284</b>	<b>100.0</b>



**NCI Extramural Funds—  
Fiscal Year 1986**

(Dollars in Thousands)

**TOTAL EXTRAMURAL**  
\$935,415



**TOTAL INTRAMURAL**  
(NOT SHOWN)

\$274,869  
\$1,210,284

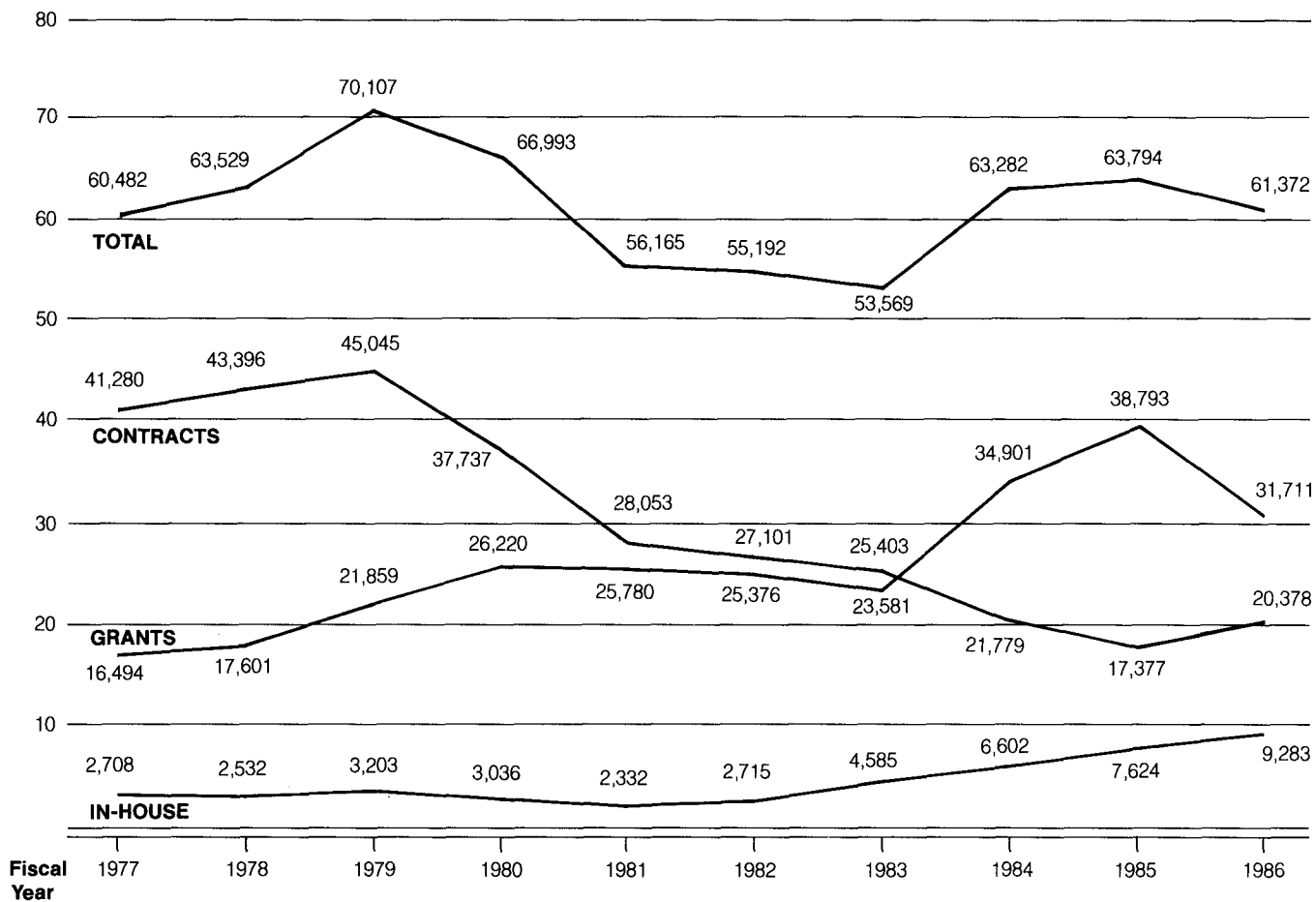
- GRANTS** \$776,491 (83.0%)
- CONTRACTS** \$148,795 (15.9%)
- INTERAGENCY AGREEMENTS** \$10,129 (1.1%)

**Total NCI Dollars by  
Mechanisms—Fiscal  
Year 1986**

Amount	Mechanism	Percent of Total	Amount	Mechanism	Percent of Total
<b>Research Project Grants</b>			<b>Training Program</b>		
\$355,862	Traditional	29.4	3,917	NRSA Individual	0.3
6,705	Young Investigators	0.6	25,595	NRSA Institutional	2.1
12,557	RFA's	1.0	29,512	Total	2.4
138,542	Program Projects	11.5			
9,235	Coop Agreements	0.8	<b>Research and Development Contracts</b>		
7,501	SBIR Grants	0.6	\$131,630	Research and Resource Contracts	10.9
23,248	Outstanding Investigator	1.9	3,802	SBIR Contracts	0.3
5,200	Merit Awards	0.4	135,432	Total	11.2
310	Minority Supplements	0.0			
559,160	Total	46.2	<b>Cancer Prevention and Control</b>		
<b>Cancer Centers Grants</b>			31,711	Cancer Control Grants	2.6
88,426	Center Core Grants	7.3	20,378	Cancer Control Contracts	1.7
<b>Other Research Grants</b>			9,283	Cancer Control Inhouse	0.8
3,368	Scientific Evaluation	0.3	61,372	Total	5.1
457	Conference Grants	0.0	<b>Construction</b>		
6,593	Research Career Programs	0.5	3,114	Construction Contracts	0.3
3,412	Clinical Education Program	0.3	<b>Inhouse</b>		
49,338	Clinical Cooperative Groups	4.1	208,805	Intramural Research	17.2
852	National Organ Systems Program	0.1	56,781	Research Management and Support	4.7
3,197	Comp. Min. Bio. Supp. Prog.	0.3	265,586	Total	21.9
278	Surgical Oncology	0.0	<b>Total</b>		
187	Small Grants	0.0	\$1,210,284		100.0%
67,682	Total	5.6			

**Cancer Prevention and Control Obligations by Mechanism—Fiscal Year 1977-1986**

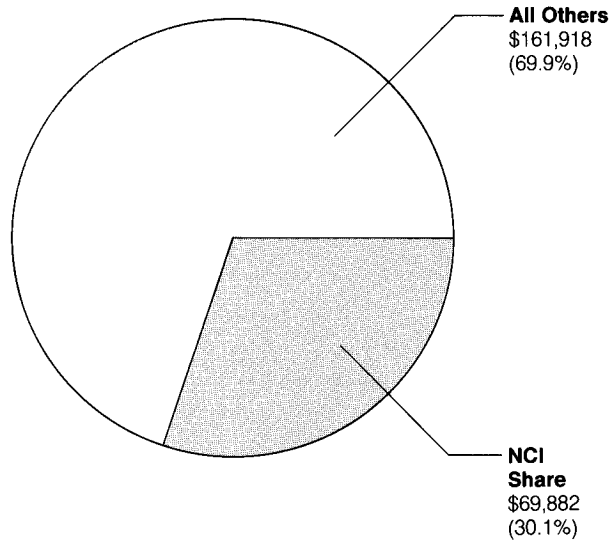
(Dollars in Thousands)



**Reimbursement to NIH  
Management Fund—  
Fiscal Year 1986**

**TOTAL NIH SERVICES**  
\$231,800

**DISTRIBUTION OF  
NCI SERVICES \$69,882**

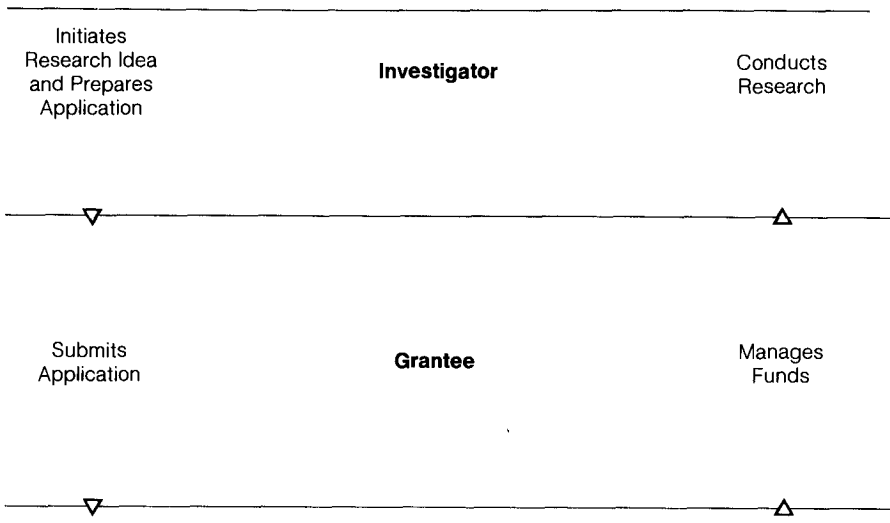


<b>Standard Level User Charges (SLUC)</b>	\$2,156 (3.1%)
Building usage including utilities	
Major renovations	
Guard services for rental buildings	
<b>Other Research Services</b>	\$15,595 (22.3%)
Procurement Services	
Safety Services	
Engineering Services	
Biomedical Engineering Services	
Veterinary Resources Services	
Library Services	
<b>Division of Research Grants</b>	\$3,588 (5.1%)
Initial Scientific Review of Applications	
Assignment of Research Grant Applications Among Institutes	
<b>Clinical Center</b>	\$45,280 (64.8%)
Employee Health Services	
Service Functions	
Social Work	
Professional Services	
Consultative Services	
Admissions and Follow-up	
Anesthesiology	
Diagnostic X-Ray	
Nuclear Medicine	
Clinical Pathology	
Blood Bank	
Rehabilitation Service	
Pharmacy Service	
Medical Records	
Nursing Service	
Patient Nutrition Service	
Environmental Sanitation Control	
Laundry	
<b>Division of Computer Research and Technology</b>	\$3,263 (4.7%)
Research & development program in which concepts & methods of computer science are applied to biomedical problems (In addition, services are rendered to the NIH community on a fee-for-service basis.)	

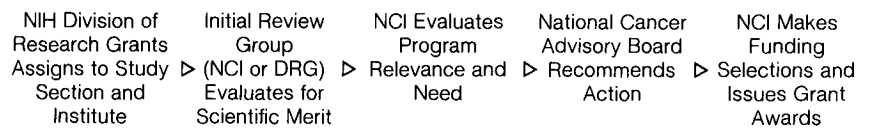
The Management Fund provides for the financing of certain common research support services and administrative activities which are required in the operations of NIH.

# NCI Grant Process

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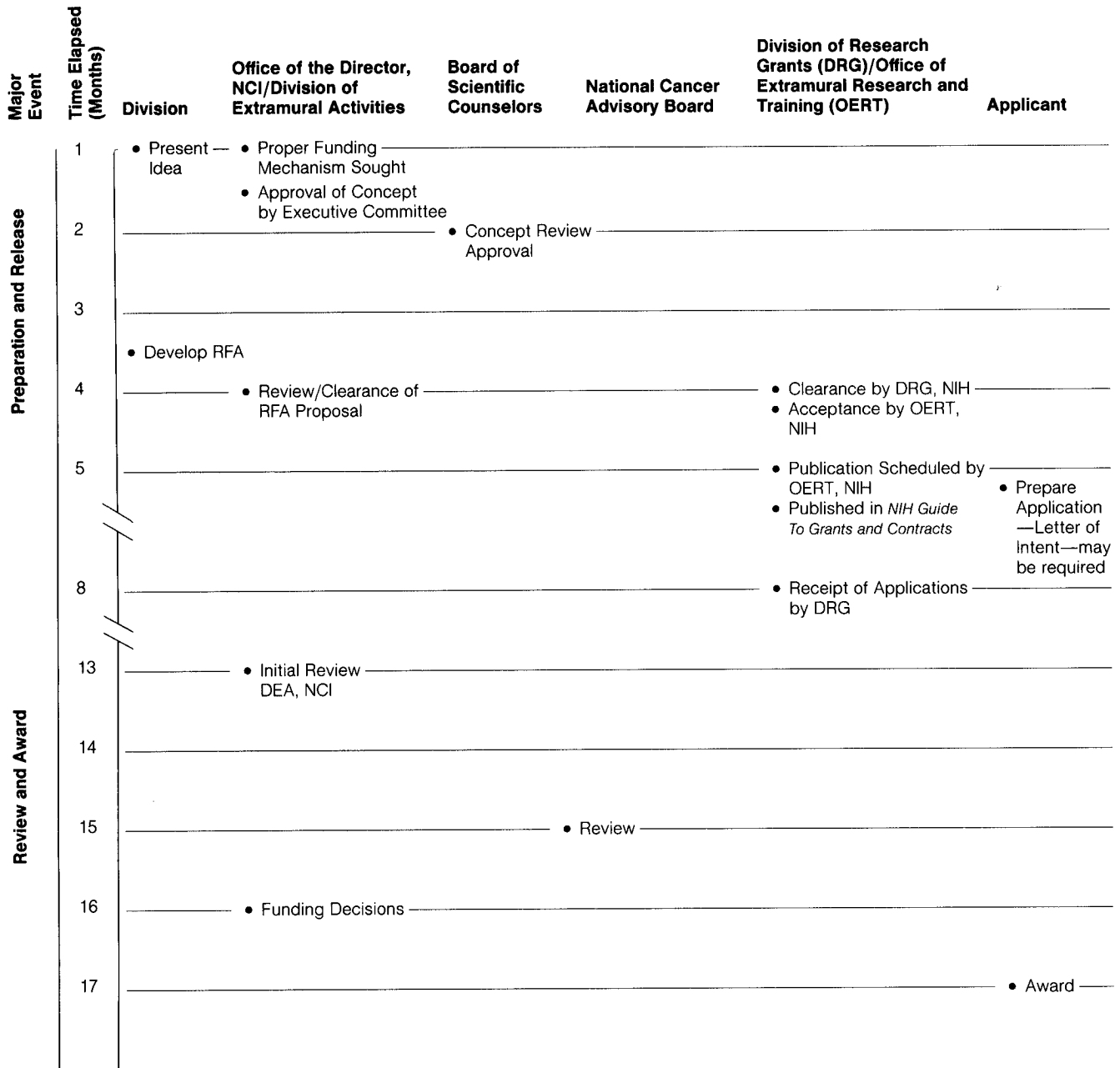


## National Institutes of Health

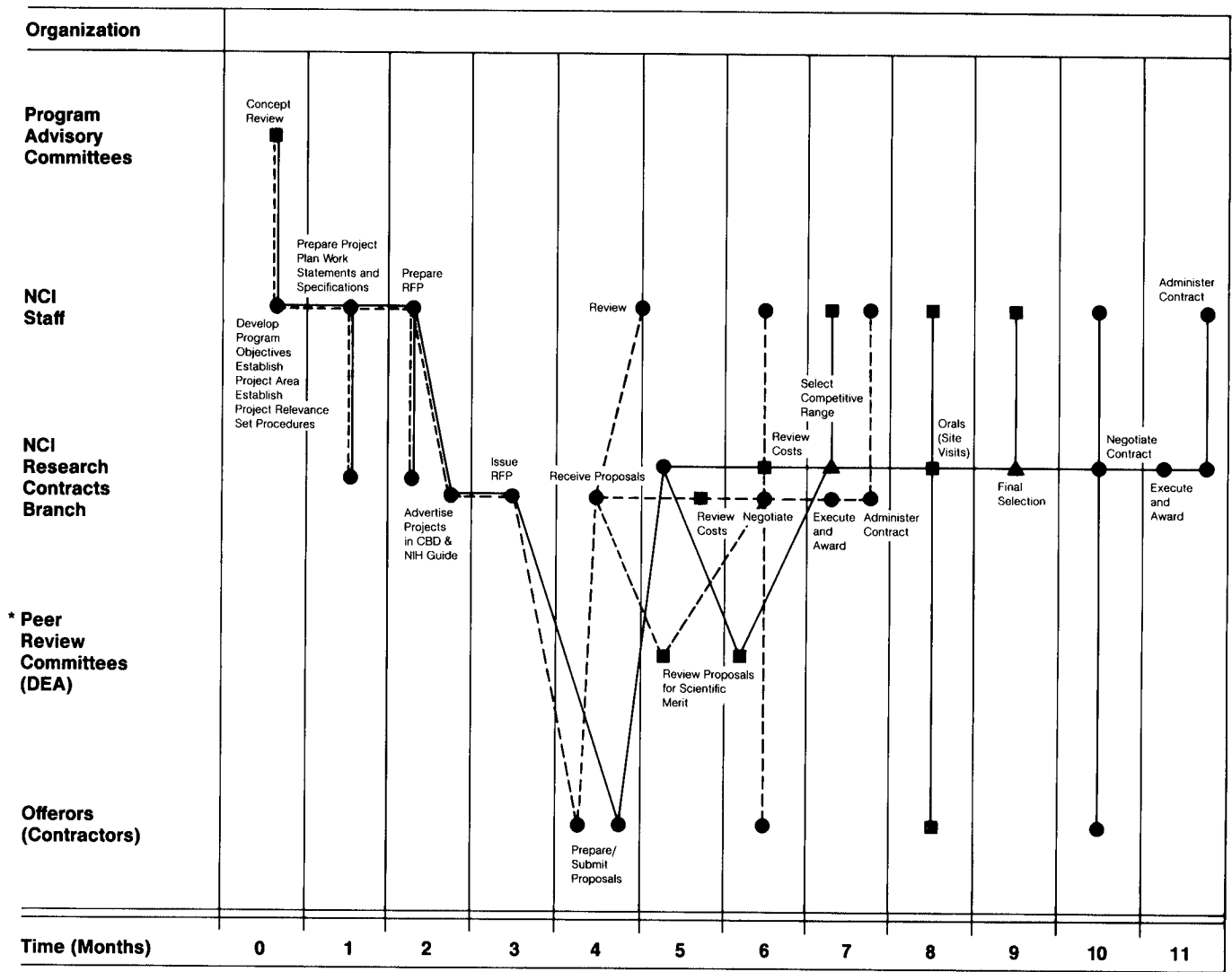




# NCI Request for Application (RFA): The Process



# NCI Contract Award Process—Under Cancer Act of 1971



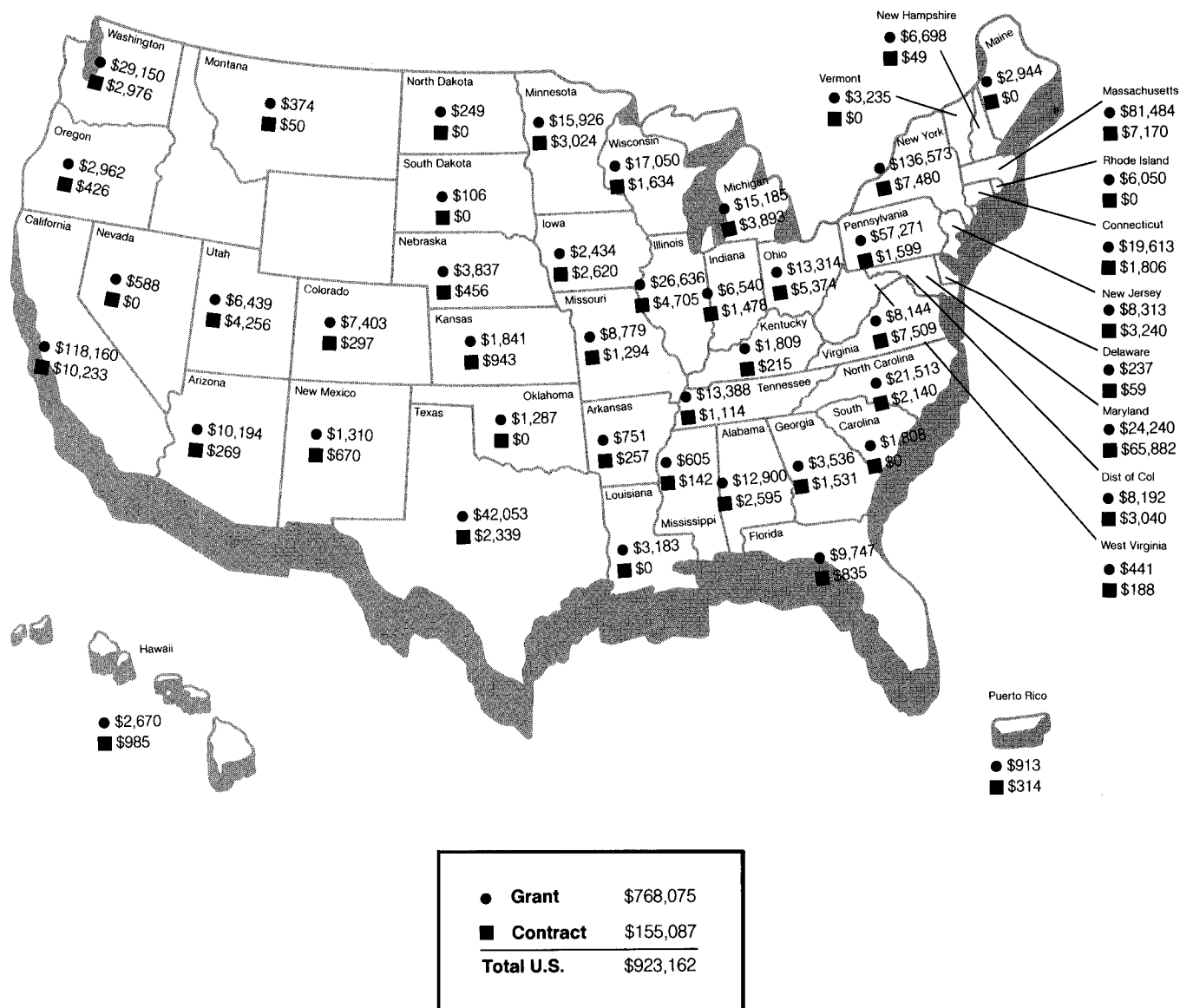
Note: Simultaneous Activities By More Than One Organization Indicate Cooperative Efforts

### Legend:

- Operation
- Review
- ▲ Decision
- Normal Competitive Flow
- - - Non-Competitive Contracts
- \* Ad-Hoc Committees May Be Used  
Includes Non-Government Employees

# NCI Grant and Contract Awards by State FY 1986

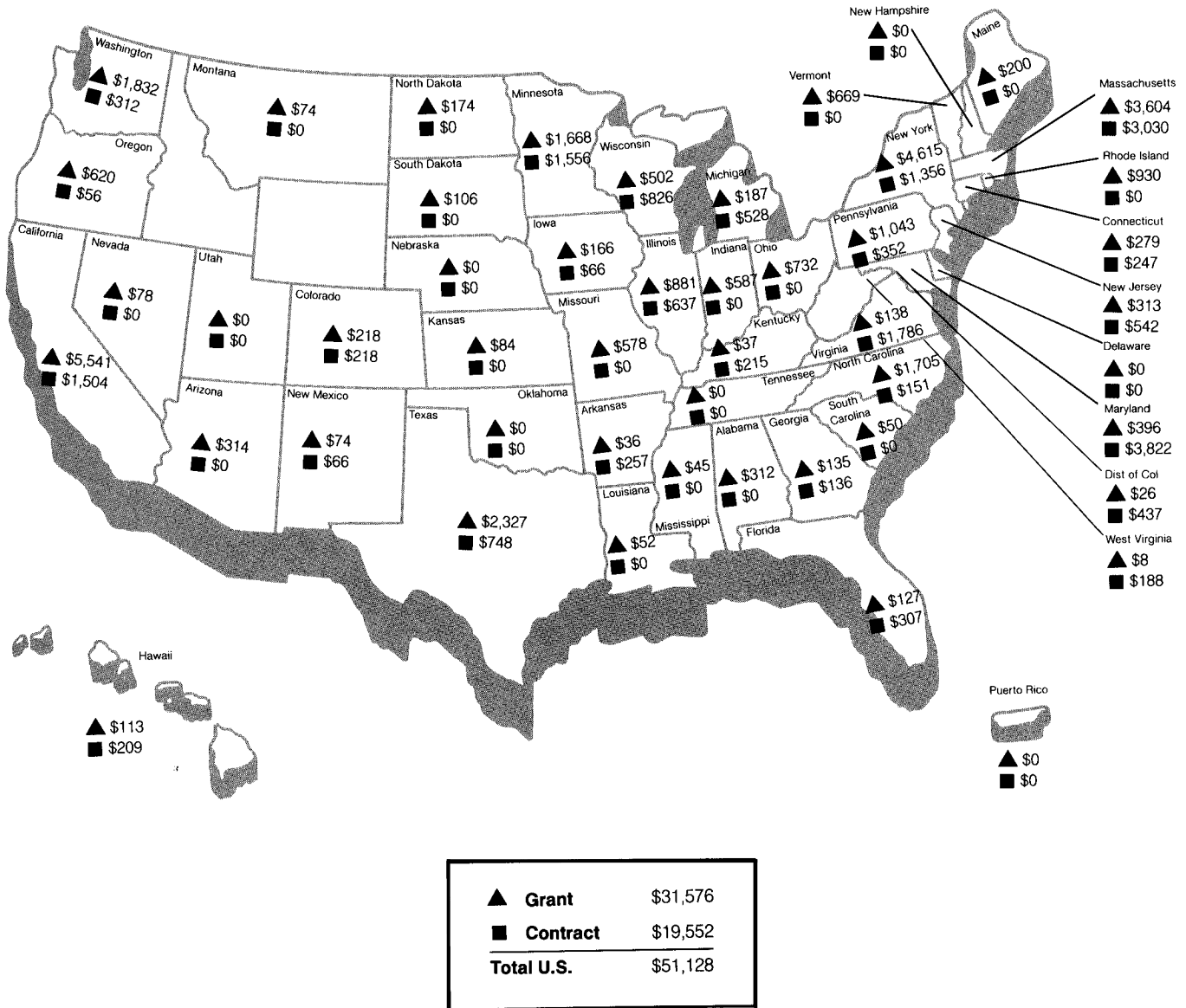
(Dollars in Thousands)



Note: Contract figures exclude foreign contracts: \$3,837; grant figures exclude foreign grants: \$5,048, and Scientific Evaluation \$3,368.

# NCI Cancer Prevention and Control Grant and Contract Awards by State FY 1986

(Dollars in Thousands)



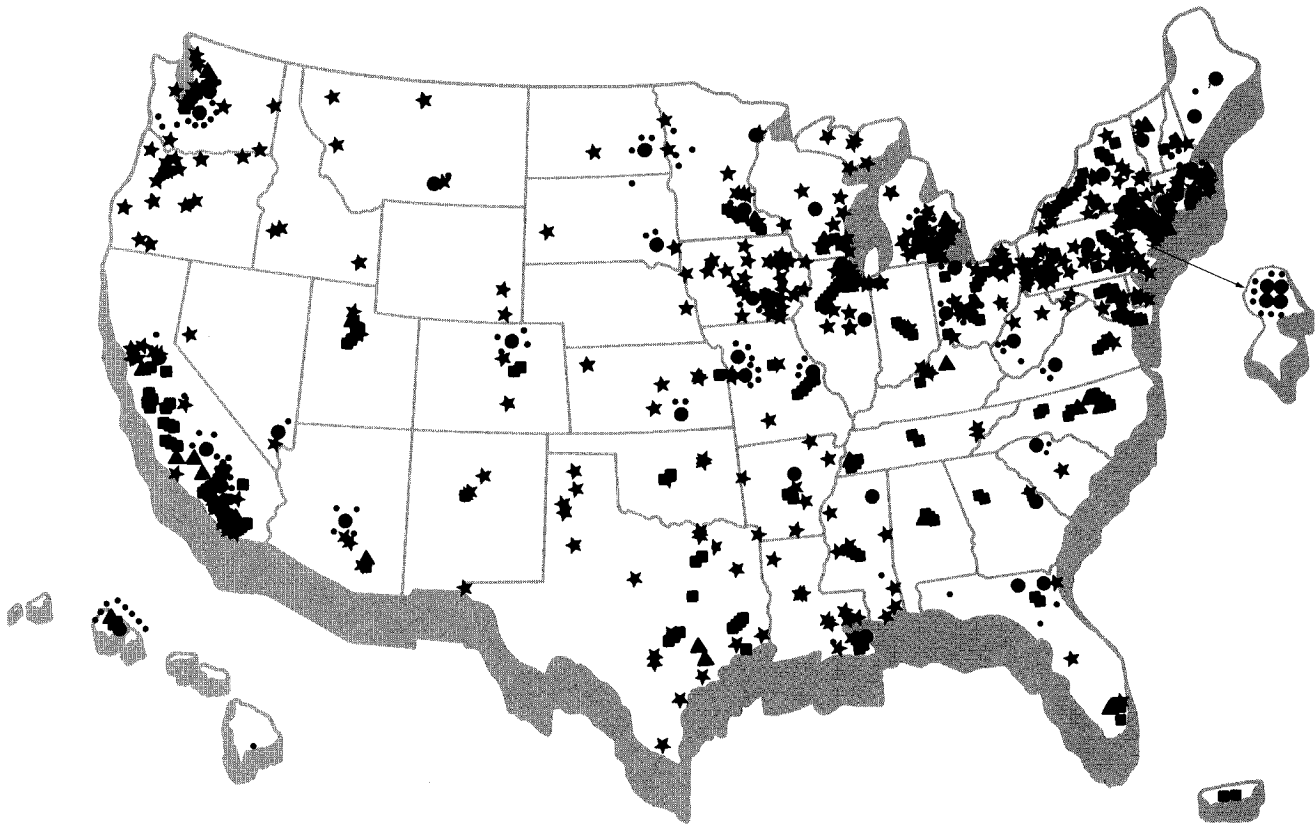
Note: Contract figures exclude foreign contracts: \$826; Grant figures exclude foreign grants: \$135.

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## National Cancer Network

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- Community Clinical Oncology Program (CCOP) and Hospital Components
- ▲ Cancer Centers
- Clinical Cooperative Group Members
- ★ Cooperative Group Outreach Program (CGOP) Components



## Institutions Receiving More Than Three Million Dollars in NCI Support

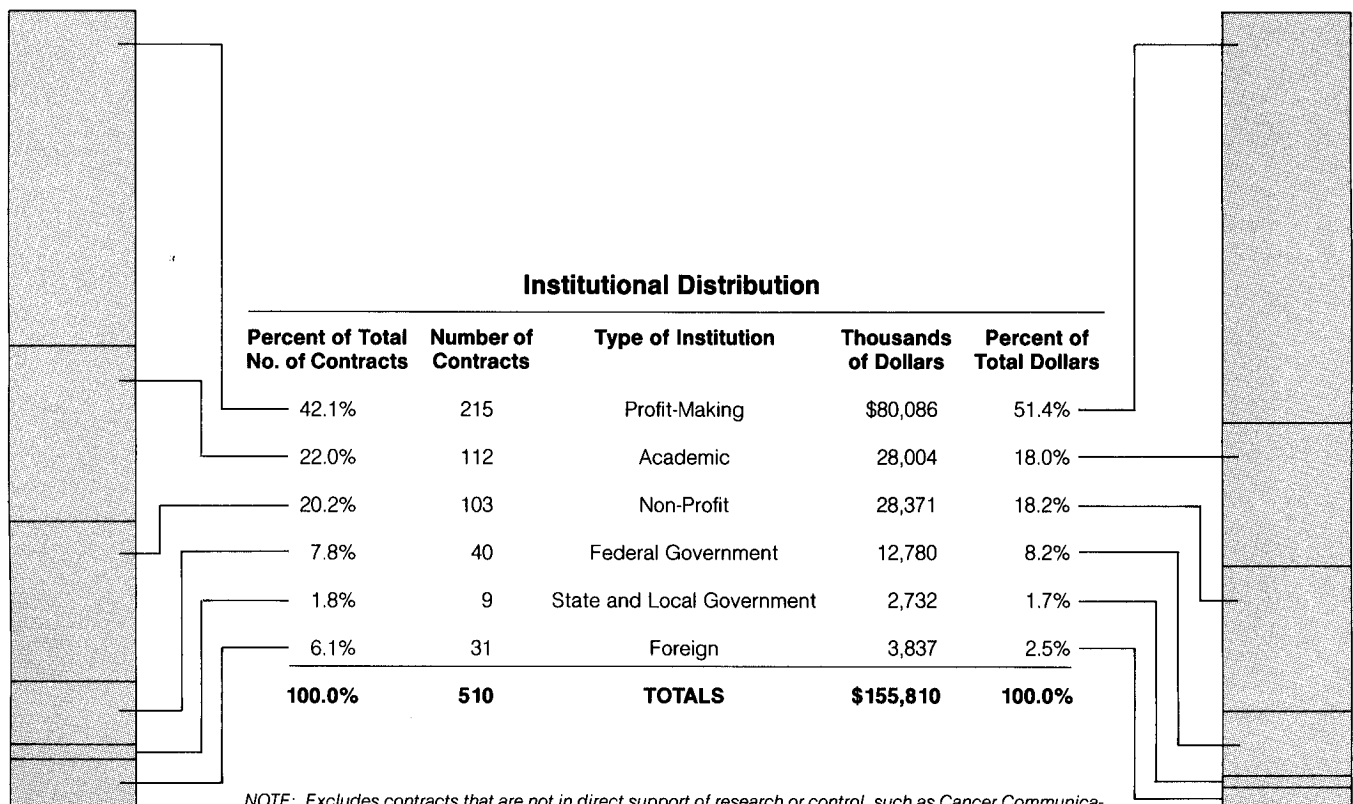
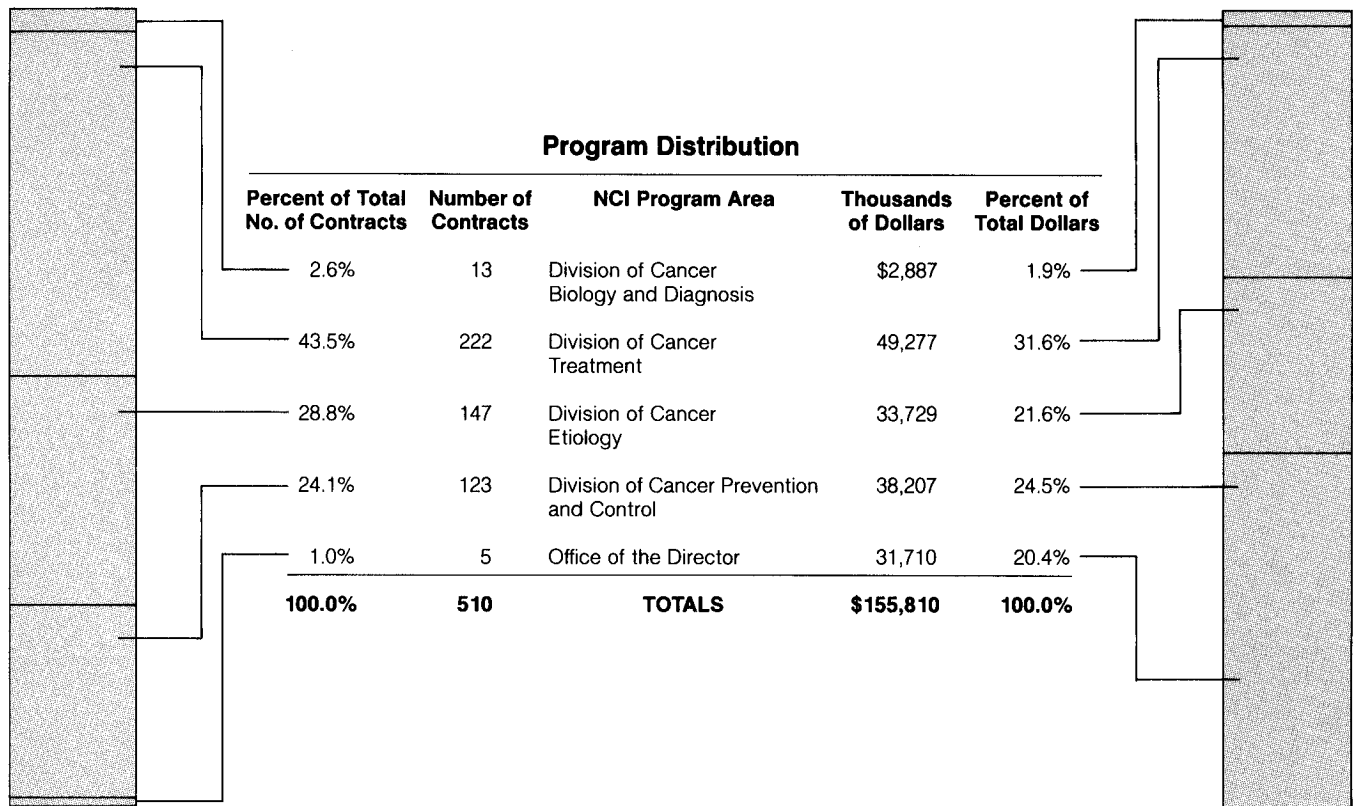
Institution	Grants	Contracts	Construction	Total NCI	State
University of Alabama System	\$8,330	\$51	\$0	\$8,381	Alabama
Southern Research Institute	3,704	2,521	0	6,225	Alabama
University of Arizona	8,880	269	0	9,149	Arizona
University of California	54,136	1,530	0	55,666	California
Litton Industries	0	12,080	0	12,080	California
Northern California Cancer Program, Inc.	3,340	2,017	0	5,357	California
La Jolla Cancer Research Foundation	4,497	0	0	4,497	California
Salk Institute for Biological Studies	5,567	0	0	5,567	California
Scripps Clinic and Research Foundation	6,558	639	0	7,197	California
University of Southern California	15,178	736	0	15,914	California
SRI International	1,748	1,336	0	3,084	California
Stanford University	14,183	0	0	14,183	California
Colorado State University	3,108	0	0	3,108	Colorado
Yale University	17,990	429	0	18,419	Connecticut
State University System of Florida	4,311	243	0	4,554	Florida
University of Miami	4,750	439	0	5,189	Florida
Emory University	2,081	1,080	0	3,161	Georgia
University of Illinois	4,279	623	0	4,902	Illinois
IIT Research Institute	593	2,439	0	3,032	Illinois
Illinois Cancer Council	3,335	414	0	3,749	Illinois
University of Chicago	10,864	129	0	10,993	Illinois
Northwestern University	3,114	140	0	3,254	Illinois
Indiana University	3,392	0	0	3,392	Indiana
University of Iowa	2,080	2,620	0	4,700	Iowa
Information Management Services	0	3,522	0	3,522	Maryland
Program Resources, Inc.	0	20,123	1,729	21,852	Maryland
Johns Hopkins University	19,291	585	0	19,876	Maryland
Westat, Inc.	0	6,063	0	6,063	Maryland
U.S. Department of the Army—Ft. Detrick	0	5,466	0	5,466	Maryland
University of Massachusetts	3,582	399	0	3,981	Massachusetts
Boston University	3,903	0	0	3,903	Massachusetts
Brigham and Women's Hospital	3,576	0	0	3,576	Massachusetts
Dana-Farber Cancer Institute	19,250	243	0	19,493	Massachusetts
Harvard University	12,569	145	0	12,714	Massachusetts
Massachusetts General Hospital	7,921	548	0	8,469	Massachusetts
Massachusetts Institute of Technology	10,461	987	0	11,448	Massachusetts
Tufts University	4,552	0	0	4,552	Massachusetts
Michigan Cancer Foundation	2,772	2,569	0	5,341	Michigan
University of Michigan	6,215	68	0	6,283	Michigan
Wayne State University	3,043	0	0	3,043	Michigan
University of Minnesota	8,682	1,774	0	10,456	Minnesota
Mayo Foundation	6,647	1,250	0	7,897	Minnesota
Washington University	5,529	0	0	5,529	Missouri
University of Nebraska System	3,614	456	0	4,070	Nebraska
Dartmouth College	6,498	0	0	6,498	New Hampshire
Princeton University	3,156	0	0	3,156	New Jersey
Cornell University	4,158	927	0	5,085	New York

(continued on next page)

## Institutions Receiving More Than Three Million Dollars in NCI Support

Institution	Grants	Contracts	Construction	Total NCI	State
City University of New York	4,815	0	0	4,815	New York
Columbia University	14,305	0	0	14,305	New York
Cold Spring Harbor Laboratory	6,216	0	0	6,216	New York
Memorial Sloan-Kettering Cancer Center	29,552	1,474	0	31,026	New York
New York State Dept of Health	14,525	680	0	15,205	New York
State University of New York	7,119	0	0	7,119	New York
New York University	9,714	0	0	9,714	New York
University of Rochester	10,926	0	0	10,926	New York
Rockefeller University	4,391	0	0	4,391	New York
Yeshiva University	10,722	0	0	10,722	New York
American Health Foundation	8,102	673	0	8,775	New York
University of North Carolina System	8,470	0	0	8,470	North Carolina
Duke University	10,116	216	0	10,332	North Carolina
Case Western Reserve University	3,227	0	0	3,227	Ohio
Battelle Memorial Institute	211	3,013	0	3,224	Ohio
Ohio State University	5,214	548	0	5,762	Ohio
Pennsylvania State University	5,918	0	0	5,918	Pennsylvania
Hahnemann University	3,144	0	0	3,144	Pennsylvania
Institute for Cancer Research	10,557	0	0	10,557	Pennsylvania
University of Pennsylvania	9,502	230	0	9,732	Pennsylvania
University of Pittsburgh	6,228	500	0	6,728	Pennsylvania
Temple University	3,382	0	0	3,382	Pennsylvania
Wistar Institute of Anatomy and Biology	9,539	0	0	9,539	Pennsylvania
St. Jude Children's Research Hospital	8,100	0	0	8,100	Tennessee
Vanderbilt University	3,436	0	0	3,436	Tennessee
Baylor College of Medicine	6,092	0	0	6,092	Texas
University of Texas System	30,081	2,243	0	32,324	Texas
Cancer Therapy and Research Center	3,356	0	0	3,356	Texas
Utah State Higher Education System	6,322	3,056	1,200	10,578	Utah
University of Vermont & St. Agric College	3,167	0	0	3,167	Vermont
Fred Hutchinson Cancer Research Center	19,005	1,160	0	20,165	Washington
University of Washington	7,776	676	0	8,452	Washington
University of Wisconsin System	15,159	1,247	0	16,406	Wisconsin
<b>Total</b>	<b>\$619,826</b>	<b>\$90,576</b>	<b>\$2,929</b>	<b>\$713,331</b>	
<b>Percent of Total</b>	<b>86.9%</b>	<b>12.7%</b>	<b>0.4%</b>	<b>100.0%</b>	
<b>Total NCI Fiscal Year 1986 obligations</b>	<b>\$1,210,284</b>				
<b>Percent of Total NCI Obligations</b>	<b>51.2%</b>	<b>7.5%</b>	<b>0.2%</b>	<b>58.9%</b>	

**Distribution of NCI  
Contracts—Fiscal  
Year 1986**



NOTE: Excludes contracts that are not in direct support of research or control, such as Cancer Communications, Program Planning, Construction, and Reimbursable contracts.

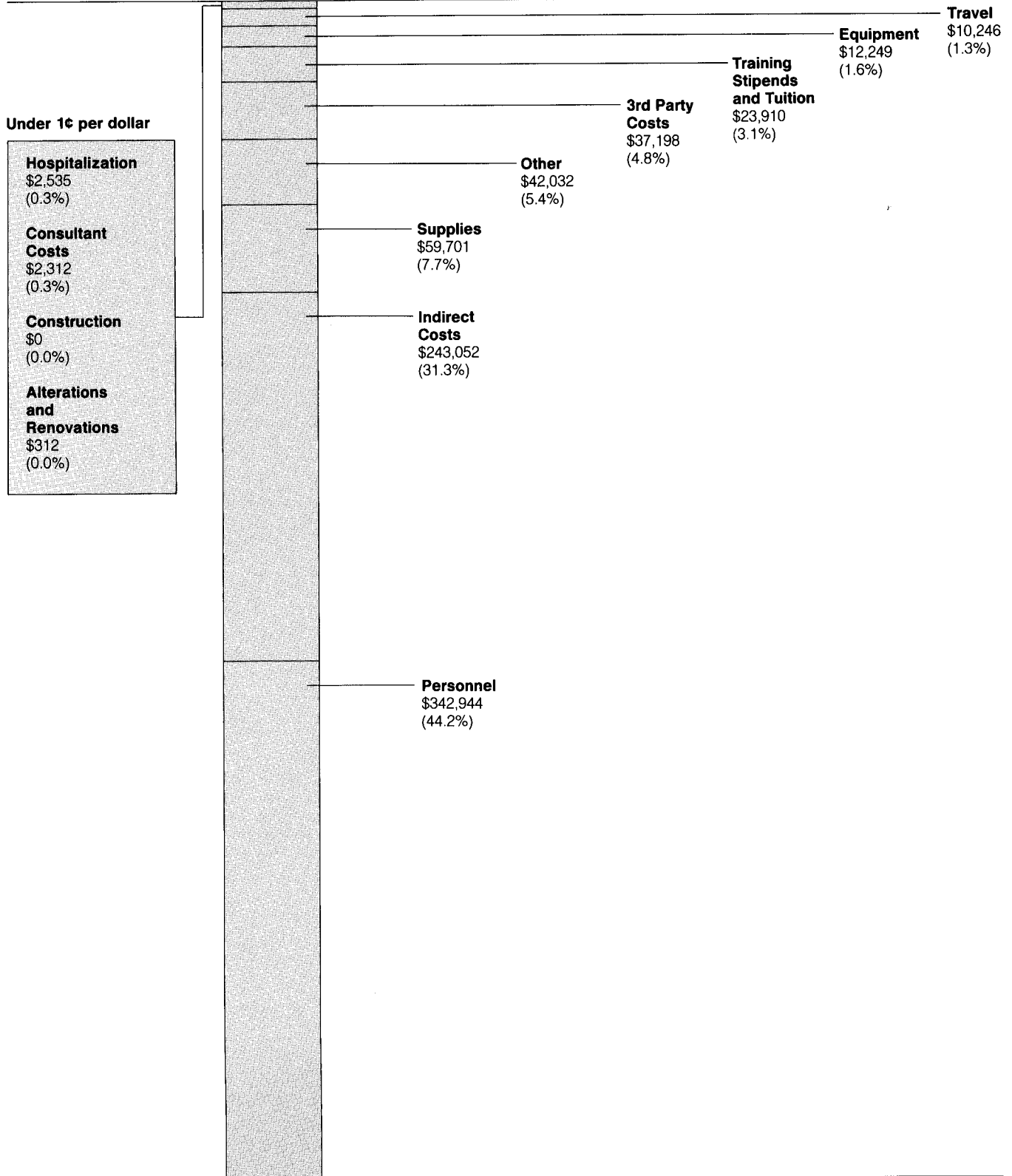


**Distribution of the Grant Dollar—  
Fiscal Year 1986**

(Dollars in Thousands)

**TOTAL GRANT OBLIGATIONS**

\$776,491



**NCI Foreign Grant and  
Contract Awards by  
Country—Fiscal Year  
1986**

(Dollars in Thousands)

Country	Number of Grants	Grant Dollars Awarded	Number of Contracts	Contract Dollars Awarded	Total Dollars Awarded	Percent of Total Dollar Awarded
Australia	3	183	0	0	183	2.1%
Belgium	1	259	1	209	468	5.3
Canada	27	1,963	5	118	2,081	23.8
China	0	0	7	1,320	1,320	15.1
Denmark	0	0	2	103	103	1.2
Finland	3	155	1	409	564	6.4
France	5	693	0	0	693	7.9
Germany Fed Republic	0	0	1	10	10	0.1
Ghana	0	0	1	45	45	0.5
Israel	7	546	3	140	686	7.8
Italy	2	51	0	0	51	0.6
Jamaica	0	0	1	311	311	3.6
Japan	1	54	1	9	63	0.7
Sweden	7	591	2	161	752	8.6
Switzerland	1	57	1	153	210	2.4
Tanzania	0	0	1	102	102	1.2
Trinidad/Tobago	0	0	1	173	173	2.0
United Kingdom	5	363	2	574	937	10.7
<b>Total Foreign</b>	<b>62</b>	<b>4,915</b>	<b>30</b>	<b>3,837</b>	<b>8,752</b>	<b>100.0%</b>

Note: Excludes Manpower Grants: Canada-\$51; France-\$27; Germany, Federal Rep. of-\$19; Switzerland-\$36.

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## **Minority-Focused Programs**

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### **Comprehensive Minority Biomedical Program (CMBP):**

1. Promotes broadened participation by minorities in cancer-related research training.
2. Contributes to the support of NCI and clinical cooperative research groups to better enable NCI's research to reach and support minority populations that are particularly susceptible to cancer.
3. Provides additional support to NCI-funded investigators who wish to engage minority investigators in their research.
4. Encourages participation in annual meetings of the American Association for Cancer Research by providing travel support for minority scientists who are engaged in cancer research or who have training that could lead to contributions in this field.
5. Initiates, with the Office of Cancer Communications, model strategies for the dissemination of cancer information to the black population by utilizing minority institutions, especially historically black colleges.

### **Cancer Control Intervention Research Activities**

Due to major differentials that exist in cancer incidence, mortality and survival between minority populations and non-minority populations, an intervention research program has been established. Current program initiatives include:

1. Primary prevention of cancer in black populations by identifying the long-term effectiveness of smoking prevention or cessation intervention programs.
2. Identification and remedy of key factors that contribute to avoidable mortality from specific cancer sites in black populations.
3. Establishment of a Research Network for Black Populations to stimulate research on important scientific and social issues relevant to this population.
4. Increased data collection efforts on cancer in Hispanics.
5. Development of a Hispanic community liaison function is being addressed in order to reach this population.

**Appropriations of the  
NCI 1938-1987**

<p><b>13.6%</b> <b>\$2,296,568,783</b></p>	<p>1938 through 1966 \$1,331,538,220</p> <p>1967..... 175,656,000</p> <p>1968..... 183,356,000</p> <p>1969..... 185,149,500</p> <p>1970..... 190,486,063</p> <p>1971..... 230,383,000</p>
<p><b>86.4%</b> <b>\$14,548,998,500</b></p>	<p>1972..... \$ 378,794,000</p> <p>1973..... 492,205,000</p> <p>1974..... 551,191,500</p> <p>1975..... 691,666,000<sup>1</sup></p> <p>1976..... 761,727,000</p> <p>"TQ"..... 152,901,000<sup>2</sup></p> <p>1977..... 815,000,000</p> <p>1978..... 872,388,000<sup>3</sup></p> <p>1979..... 937,129,000</p> <p>1980..... 1,000,000,000<sup>4</sup></p> <p>1981..... 989,355,000<sup>5</sup></p> <p>1982..... 986,617,000<sup>6</sup></p> <p>1983..... 987,642,000<sup>7</sup></p> <p>1984..... 1,081,581,000<sup>8</sup></p> <p>1985..... 1,183,806,000</p> <p>1986..... 1,264,159,000<sup>9</sup></p> <p>1987..... 1,402,837,000<sup>10</sup></p>
<p><b>Total</b> <b>(1938-1987). . . . \$16,845,567,283</b></p>	

**Transition Quarter ("TQ")**—July 1, 1976 through September 30, 1976. The Interim Period in the changing of the Federal Fiscal Year from July 1 through June 30 to October 1 through September 30.

<sup>1</sup> Includes \$18,163,000 for training funds provided by Continuing Resolution.

<sup>2</sup> Includes \$3,201,000 for training funds provided by Continuing Resolution.

<sup>3</sup> Includes \$20,129,000 for training funds provided by Continuing Resolution.

<sup>4</sup> 1980 appropriation authorized under a Continuing Resolution.

<sup>5</sup> Reflects 1981 rescission of \$11,975,000.

<sup>6</sup> Amount included in Continuing Resolution. Includes \$47,988,000 transferred to the National Institute of Environmental Health Sciences for the National Toxicology Program.

<sup>7</sup> Appropriated under Continuing Resolution and Supplemental Appropriation Bill.

<sup>8</sup> Includes \$23,861,000 for training funds provided by a Continuing Resolution and \$4,278,000 in a Supplemental Appropriation Bill.

<sup>9</sup> Includes \$6,000,000 from a Supplemental Appropriation Bill.

<sup>10</sup> Authorized under Omnibus Continuing Resolution.

**NCI Budget History by  
Mechanism: Selected  
Fiscal Years 1972,  
1980, 1986**

(Dollars in Thousands)

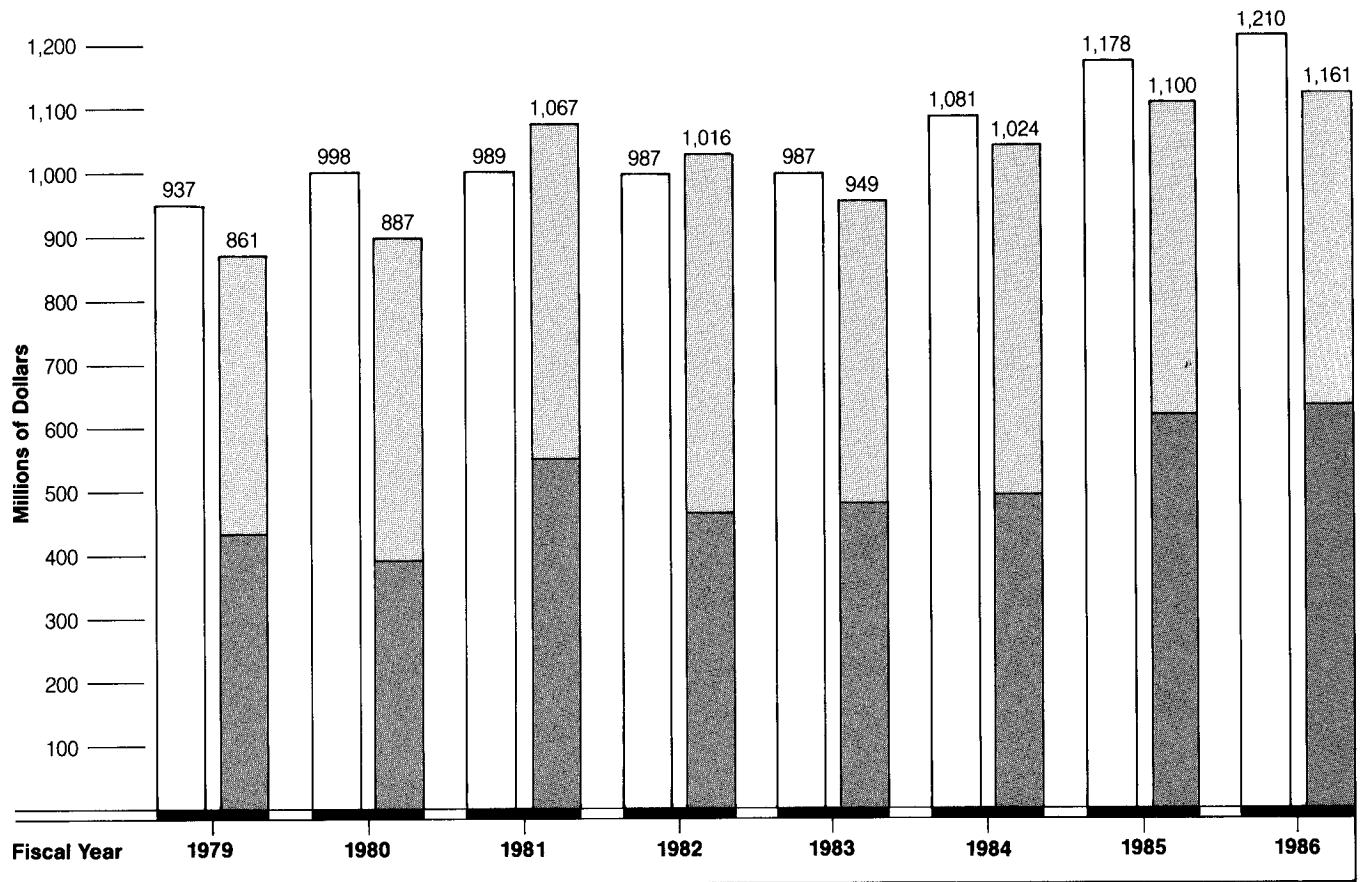
	1972 Actual		1980 Actual		1986 Actual	
	Dollars	Percent of Total	Dollars	Percent of Total	Dollars	Percent of Total
<b>Group I—Investigator Initiated:</b>						
Regular Research Grants	60,073	19.0	216,081	30.9	379,403	43.0
Small Grants					187	0.0
Clinical Cooperative Groups	10,102	3.2	36,884	5.3	49,338	5.6
Program Projects—PO1's	39,260	12.4	104,643	14.9	138,542	15.7
Clinical Education Program	—		10,906	1.6	3,412	0.4
Research Career Program	2,026	.6	5,014	0.7	6,593	0.8
Fellowships and Training	18,395	5.8	27,260	3.9	29,512	3.3
Organ Site	638	.2	17,554	2.5		
Cancer Centers-Core Support	10,090	3.2	67,421	9.6	88,426	10.0
Other Center Support Grants	1,089	.3	591	0.1		
Cooperative Agreements					9,235	1.0
Minority Biomedical Support			1,980	0.3	3,197	0.4
Organ System					852	0.1
Outstanding Investigator Grant					23,248	2.6
<i>Subtotal</i> (Small Business Grants)	141,673	44.7	488,334	69.8	731,945 (7,501)	82.9 (0.8)
<b>Group II—Co-Initiated:</b>						
RFAs			6,683	1.0	12,557	1.4
Research Contracts	46,802	14.8	55,265	7.8	24,506	2.8
RFA R21's					278	0.0
<i>Subtotal</i> (Small Business Contracts)	46,802	14.8	61,948	8.8	37,341 (3,802)	4.2 (0.4)
<b>Group III—NCI/NCP Initiated</b>						
Resource Support Contracts	63,194	20.0	115,425	16.5	100,797	11.4
Interagency Agreements	12,053	3.8	18,740	2.7	10,129	1.1
<i>Subtotal</i>	75,247	23.8	134,165	19.2	110,926	12.5
<b>Group IV—Other Resources</b>						
Planning Grants	1,698	.5	221	0.0		
Construction Grants	47,004	14.9	10,814	1.5		
Construction Contracts	3,999	1.3	4,618	0.7	3,114	0.4
<i>Subtotal</i>	52,701	16.7	15,653	2.2	3,114	0.4
<b>Total</b>	316,423	100.0	700,100	100.0	883,326	100.0
<b>% Total</b>		84.3		73.1		73.0
In-House Research	25,696	6.8	98,665	10.3	133,377	11.0
Management & Support	33,246	8.9	95,735	10.0	141,492	11.7
(NIH Management Fund)	(12,910)	(3.4)	(39,549)	(4.1)	(69,882)	(5.8)
Cancer Control (Grants & Contracts)			63,663	6.6	52,089	4.3
<i>Subtotal</i>	58,942	15.7	258,063	26.9	326,958	27.0
<b>Total NCI</b>	375,365	100.0	958,163	100.0	1,210,284	100.0
Transfers:						
Diagnostic Radiation	(2,800)	(.8)	(3,611)	0.4		
National Toxicology Program			(43,495)			

## Comparison of Dollars, Positions and Space

	Dollars			Positions			Space		
	Obligations (\$000's)	Percent of Increase Over Base Year	Percent of Increase Over Prior Year	Actual Full-Time Permanent Employees	Percent of Increase Over Base Year	Percent of Increase Over Prior Year	Allocated Space (Square Feet)*	Percent of Increase Over Base Year	Percent of Increase Over Prior Year
1971	232,855	Base Year	—	1426	Base Year	—	321,230	Base Year	—
1972	378,636	62.6	62.6	1665	16.8	16.8	329,587	2.6	2.6
1973	431,245	85.2	13.9	1736	21.7	4.3	357,972	11.4	8.6
1974	581,149	149.6	34.8	1805	26.6	4.0	381,436	18.7	6.6
1975	699,320	200.3	20.3	1849	29.7	2.4	382,485	19.1	0.3
1976	760,751	226.7	8.8	1955	37.1	5.7	387,324	20.6	1.3
1977	814,957	250.0	7.1	1986	39.3	1.6	428,285	33.3	10.6
1978	872,369	274.6	7.0	1969	38.1	-0.9	491,725	53.1	14.8
1979	936,969	302.4	7.4	1973	38.4	0.2	493,156	53.5	0.3
1980	998,047	328.6	6.5	1837	28.8	-6.9	467,730	45.6	-5.2
1981	989,338	324.9	-0.9	1815	27.3	-1.2	472,633	47.1	1.0
1982	986,564	323.7	-0.3	1703	19.4	-6.2	477,782	48.7	1.1
1983	986,811	323.8	0.02	1731	21.4	1.6	484,093	50.7	1.3
1984	1,081,460	364.4	9.6	1698	19.1	-1.9	466,890	45.3	-3.6
1985	1,177,853	405.8	8.9	1596	11.9	-6.0	466,890	45.3	.0
1986	1,210,284	419.8	2.8	1573	10.3	-1.4	465,790	45.0	-2

\*Does not include the Frederick Cancer Research Facility.

# National Cancer Institute Obligations and Outlays, Fiscal Years 1979-1986



**Obligations**

**Outlays** **Current Year Funds**  
 **Prior Year Funds**

**Obligations:** Orders placed, grants and contracts awarded, salaries earned and similar financial transactions which legally utilize or reserve an appropriation for expenditure.  
**Outlays:** Payments (cash or checks) made from current or prior year appropriations.

# NCI Total Research Projects – 1981-1986

(Dollars in Thousands)

Fiscal Year	Type Awarded	Requested		Recommended		Awarded		Percent Funded <sup>1</sup>
		Number	Amount	Number	Amount	Number	Amount	
1981	Competing							
	New	2,017	\$277,145	1,594	\$156,704	483	\$53,004	30.3%
	Renewal	687	131,355	653	91,034	311	48,122	47.6
	Board Supplement	61	3,776	47	1,738	32	940	68.1
	Subtotal	2,765	\$412,276	2,294	\$249,476	826	\$102,066	36.0
	Noncompeting					1,802	253,389	
	<b>Total</b>					<b>2,628</b>	<b>\$355,455</b>	
1982	Competing <sup>2</sup>							
	New	2,187	\$308,153	1,784	\$189,245	434	\$47,224	24.3
	Renewal	730	174,573	706	117,099	323	50,186	45.7
	Board Supplement	28	2,266	24	1,289	4	86	16.7
	Subtotal	2,945	\$484,992	2,514	\$307,633	761	\$97,496	30.3
	Noncompeting					1,797	260,853	
	<b>Total</b>					<b>2,558</b>	<b>\$358,349</b>	
1983	Competing <sup>2</sup>							
	New	2,229	\$323,572	1,844	\$215,945	529	\$55,316	28.7
	Renewal	783	160,881	763	113,664	358	56,698	46.9
	Board Supplement	23	2,492	15	727	3	110	20.0
	Subtotal	3,035	\$486,945	2,622	\$330,336	890	\$112,124	33.9
	Noncompeting					1,923	294,019	
	<b>Total</b>					<b>2,813</b>	<b>\$406,143</b>	
1984	Competing							
	New	2,113	\$310,433	1,773	\$207,996	558	\$68,376	31.5
	Renewal	774	179,764	745	135,253	416	90,140	55.8
	Board Supplement	13	1,766	11	788	3	105	27.3
	Subtotal	2,900	\$491,963	2,529	\$344,037	977	\$158,621	38.6
	Noncompeting					1,869	302,626	
	<b>Total</b>					<b>2,846</b>	<b>\$461,247</b>	
1985	Competing							
	New	2,400	\$398,621	2,042	\$282,590	599	\$83,691	29.3
	Renewal	782	183,483	758	140,472	416	84,708	54.9
	Board Supplement	19	1,659	13	850	2	65	15.4
	Subtotal	3,201	\$583,763	2,813	\$423,912	1,017	\$168,464	36.2
	Noncompeting					1,964	348,011	
	<b>Total</b>					<b>2,981</b>	<b>\$516,475</b>	
1986	Competing <sup>2</sup>							
	New	2,354	\$392,028	1,997	\$277,698	564	\$84,470	28.2
	Renewal	787	198,814	765	160,021	385	77,012	50.3
	Board Supplement	12	775	10	366	1	14	10.0
	Subtotal	3,153	\$591,617	2,772	\$438,085	950	\$161,496	34.3
	Noncompeting					2,111	397,664	
	<b>Total</b>					<b>3,061</b>	<b>\$559,160</b>	

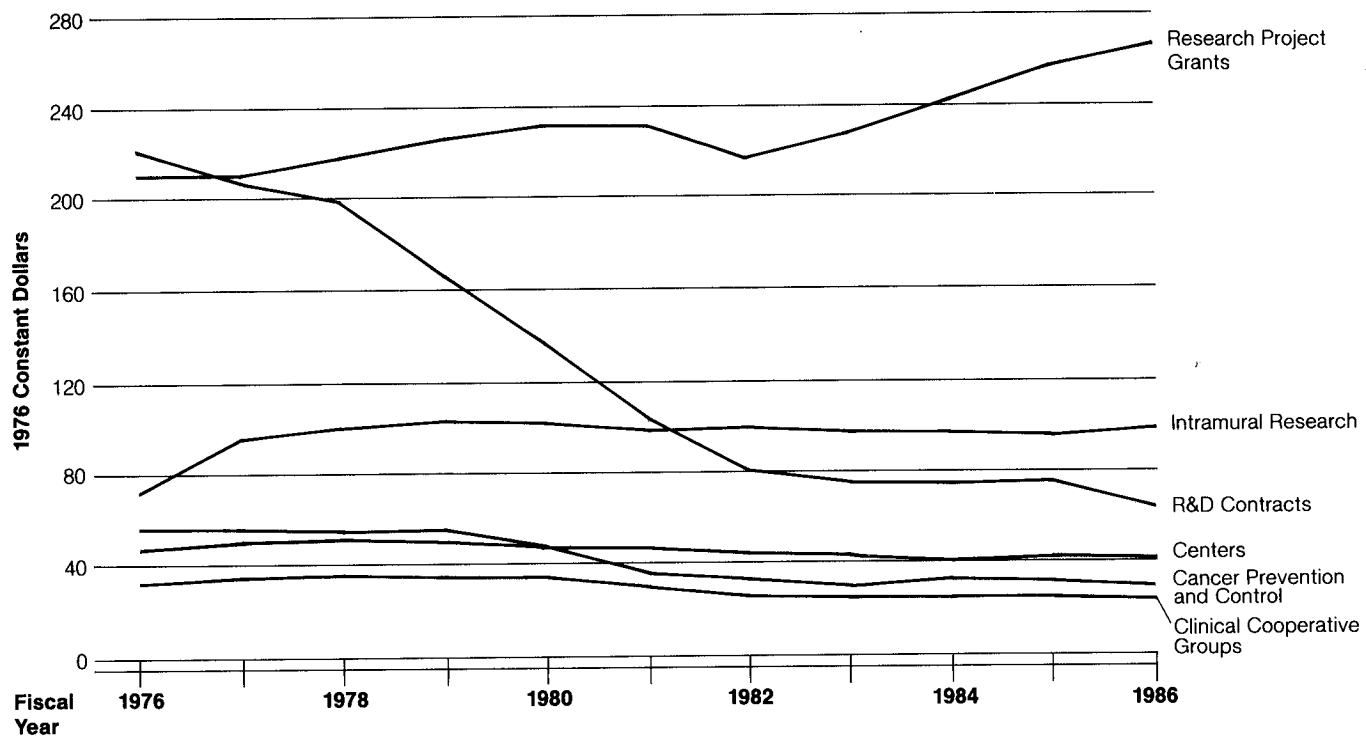
Note: Includes R01 traditional grants, P01 program projects, R23 new investigator research awards, R35 Outstanding Investigator Grants, R37 MERIT awards, U01 Cooperative agreement awards, R01 and U01 awards of RFA's and R43/R44 Small Business Innovative Research awards.

<sup>1</sup>Percent Funded; Number Awarded ÷ Number Recommended

<sup>2</sup>Because of fiscal restraints, grants were awarded below recommended levels.



## NCI Historical Trends: Obligations By Mechanism





National Cancer Institute