THE CANCER LETTER

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NCI Drops Breast Screening Guidelines, Issues "Summary Of Scientific Fact"

NCI last week pulled out of the 1988 consensus guidelines on breast cancer screening. But as it abandoned one set of guidelines, the Institute did not offer another.

Instead, the NCI Executive Committee last week issued a "summary of scientific fact" that cited a lack of evidence to support the recom-

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In Brief

NCI Deputy Director Ihde To Leave Institute; Bynum To Retire; Lewis Thomas Dead At 80

DANIEL IHDE, deputy NCI director, announced he will leave the Institute in February or March to take a position as chief of medical oncology, Washington Univ. in St. Louis. "I have greatly enjoyed this job for the past three years, but I took it with the intention of leaving for a university eventually. This was a good opportunity," Ihde said to **The Cancer Letter**. Ihde also will relinquish his post as editor of the Journal of the National Cancer Institute. His new job will entail strengthening the university's clinical research program. . . . **BARBARA BYNUM,** director of NCI's Div. of Extramural Activities since 1981, will retire effective Jan. 13. Bynum is the first of the five NCI division directors appointed by former NCI director Vincent DeVita to retire. A 1957 graduate of the Univ. of Pennsylvania, Bynum came to NCI in 1958 to work as a chemist in the Laboratory of Physiology. In 1971, Bynum went through a management intern program and moved to the NIH Div. of Research Grants, where she was a study section executive secretary and later, chief of the special review section. She returned to NCI in 1981. Bynum said her retirement plans include travel, golf, and gardening. Her husband, **Elward Bynum,** retired earlier this year as head of the NIH Minority Access to Research Careers program. They have one son, who is completing graduate school in epidemiology. "While I will always care what goes on at NCI, I will care at a distance," Bynum said. "I remain concerned about the diversity in the NIH workforce and the health status of Americans." . . . **LEWIS THOMAS** died Dec. 3 in New York of Waldenstrom's disease. He was 80. Thomas served as president of Memorial Sloan-Kettering Cancer Center and as dean of Yale Univ. and New York Univ. medical school. He was best known for his ability to make complex scientific concepts accessible to non-scientists through his writing. His book "The Lives of a Cell" won a National Book Award, and he won the American Book Award for "The Medusa and the Snail.". . . **"IN BRIEF"** is continued to page 6.

NCI: No Guidelines, Scientifc Statement On Mammography

(Continued from page 1)
mendation for routine screening mammography for women between ages 40 and 49.

The "summary" made no comment on the value of clinical breast examination or breast self-examination for women under 50.

The full text of the Institute's statement follows:

"There is a general consensus among experts that routine screening every one to two years with mammography and clinical breast examination can reduce breast cancer mortality by about one-third for women ages 50 and over.

"Experts do not agree on the role of routine screening mammography for women ages 40 to 49. To date, randomized clinical trials have not shown a statistically significant reduction in mortality for women under the age of 50."

The statement constitutes the Institute's abandonment of the guidelines developed with the American Cancer Society and other organizations, confirmed Edward Sondik, deputy director of NCI's Div. of Cancer Prevention & Control.

"If we had stayed with the guidelines, we would have been left in a situation in which the science was inconsistent with our recommendations," Sondik said to **The Cancer Letter**. "The best thing we could do at this point was succinctly state the science."

The American Cancer Society and 18 other professional and patient advocacy groups recently reaffirmed their support for the guidelines, which call for annual screening mammography and clinical breast examination for women over 50 and the same procedures every one to two years for women between ages 40-49 (**The Cancer Letter**, Nov. 26).

A Year Of Debate

The NCI statement is the result of a year of debate triggered by the results of the Canadian National Breast Screening Study, which appeared to show that screening women between ages 40 and 49 does not result in a reduction of mortality from breast cancer.

The study's methods came under scathing criticism by U.S. radiologists (**The Cancer Letter**, Nov. 27, 1992).

NCI held a scientific workshop last February to review the Canadian study and data emerging from other long-term trials. The Institute was criticized for selecting as workshop chairman Suzanne Fletcher, co-editor of the Annals of Internal Medicine, who had written an article opposing the 1988 guidelines.

The workshop considered eight trials and concluded that there was no statistically significant mortality benefit in screened women between age 40-49 (**The Cancer Letter**, April 2).

Last September, NCI drafted new guidelines supporting screening mammography every one to two years for women over 50 and dropping specific screening recommendations for women between ages 40-49 (**The Cancer Letter**, Sept. 24).

These were presented to two advisory groups.

In October, the Board of Scientific Counselors to NCI's Div. of Cancer Prevention & Control asked NCI to return to the 1988 guidelines for women over 50, and advised the Institute not to issue guidelines for younger women. The board suggested that NCI provide a summary of data on screening for women between ages 40 and 49 (**The Cancer Letter**, Oct. 29).

Last month, in a 14-1 vote, the National Cancer Advisory Board recommended that NCI keep the 1988 guidelines in place until further data became available (**The Cancer Letter**, Nov. 26).

Personal Decision

Asked why the NCI statement made no comment on clinical breast examination and breast self-examination for younger women, Sondik said, "We felt we would focus on what we know specifically with respect to screening. The international workshop did not address that.

"We still would recommend as a prudent activity clinical breast exam and BSE," he said.

THE CANCER LETTER

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In the absence of a strong scientific rationale to support screening of younger women, such decisions should be left to women and their physicians, Sondik said.

"If a woman is informed about the pros and cons of mammography and she decides not to be screened, I understand that decision," Sondik said to **The Cancer Letter**. "Or, if she decides to be screened, I also understand that decision.

"It is really a personal decision," he said.

Applause And Condemnation

Here is what several players in this controversy said this week about the NCI statement:

Paul Calabresi, chairman of the National Cancer Advisory Board:

"I am extremely pleased by the nature and substance of the NCI statement. I think the recommendations are both accurate and appropriate. NCI is a science-based organization and the statement represents an excellent summary of scientific fact.

"The interpretation of these facts by various other organizations or individuals will differ considerably, and this is why experts do not agree at this time on the precise role of screening mammography for women ages 40-49.

"The NCAB voted to defer changing the guidelines for various reasons. Some members of the NCAB do not believe the studies in Sweden or Canada are necessarily relevant to the ethnic representation of women in the United States. Others are critical of the data for other reasons and some believe changing the guidelines now to be premature and confusing.

"I believe we are on the verge of major understanding of the genetic risk factors involved in breast cancer. The real probability of identifying within a year the BRCA 1 or other genes that will serve as markers of a genetic predisposition will change our outlook entirely toward screening for breast cancer.

"With the prospect of health care reform, all women, as well as men, will have access to a primary care provider, something that is terribly lacking at this time. In the near future, we can look forward to a more focused and intensive screening of populations at the greatest risk.

"As new scientific information becomes available, the NCAB may want to make specific recommendations."

Harmon Eyre, Medical director of the American Cancer Society:

"The American Cancer Society's position that we still believe screening mammography is of value has not been disproven by the data and the scientific analysis NCI speaks of.

"The American Cancer Society still wants to be on record that the scientific evidence do not warrant changing the guidelines.

"We believe there should be every effort made to improve the scientific database. I feel it will be very difficult for NCI as the leading government agency on cancer to get out of the guidelines business, because they will be called upon to make some statements to the public and Congress.

"We are going to continue to promote mammography and I believe women will be confused now. It is being perceived by women in America as a change in guidelines."

Daniel Kopans, associate professor of radiology, Harvard Medical School, director of breast imaging, Massachusetts General Hospital:

"Despite the fact that its own National Cancer Advisory Board had voted 14 to 1 that NCI not change its guidelines for breast cancer screening, the Institute has proceeded and withdrawn support for screening women ages 40-49.

"In addition to ignoring the advice of the board and abandoning women ages 40-49, NCI has also ignored its Board of Scientific Counselors recommendation that it not change the guidelines for women ages 50 and over.

"In disregarding the advice of, not only its own advisory groups, but the analyses of other scientific and medical organizations, it is obvious that NCI made a political decision so that its guidelines would be concordant with the Administration's new National Health Plan.

"By abdicating its role as an objective scientific organization, NCI has severely compromised its credibility. Even the recommendation by the [Div. of Cancer Prevention & Control] Board of Scientific Counselors that physicians and women be presented with 'a summary of existing evidence and data' has been ignored. The Physicians Data Query summary of screening has been almost completely abstracted from the 'Fletcher Report,' which was the biased summary of the predetermined 'International' review conducted by NCI.

"The Institute has repeatedly promulgated its new position with generalizations that have avoided directly answering any of the legitimate scientific criticisms of its narrow analysis of the available data. NCI has correctly suggested that there is disagreement among experts, but as more groups analyze the data in greater detail, the NCI analysis has become a minority assessment.

"The mere pronouncement by NCI that there is 'no compelling evidence' to support screening women ages 40-49 does not make it so. There is, in fact, compelling evidence that screening using mammography on a periodic basis is just as effective in reducing mortality for women ages 40-49 as for women 50-59. Based on NCI's own assessment, there appears to be a decrease in breast cancer morality that has recently emerged for women ages 40-49, that is, in part, due to early detection. It is certainly not clear why, in the face of success, screening should be stopped now. There are certainly ample data to support its continuation."

Arnold Kaluzny, professor, Univ. of North Carolina, Chapel Hill, School of Public Health, and chairman, NCI Div. of Cancer Prevention & Control Board of Scientific Counselors:

"It seems to me that this is quite consistent with the general thrust that we were proposing. No. 1, whether we should be in the guidelines business at all, and No. 2, we don't know the implications of screening women between the ages of 40-49. Clearly, the statement is quite consistent with these two principles: We don't know and we're telling the truth.

"This issue does not lend itself to nice statements. That's the complexity of this. I'm not sure how NCI could possibly summarize this into a neat paragraph except to say that experts don't agree.

"One very important thing that emerged from the BSC was that NCI should not be in the guidelines business. We really don't have the structure to deal with these issues which go way beyond the science. This is something NCI should think about. We can provide information to this larger process, but the Agency for Health Care Policy and Research has the mandate to look at guidelines."

David Bragg, NCAB member whohelped prepare the resolution recommending that NCI"defer action on changing screening guidelines," expressed concern with the NCI statement. Bragg said the evidence at present supports continued screening.

"The statistical data derived from the multinational trial program is difficult to interpret for women under age 50 as the studies were not designed to assess this age group," he said. "The NCI statement does little to clarify an area of scientific confusion and will add futher uncertainty to the role of screening mammography at all ages."

DCPC Lists Spending Plans For $40 Million Increase

NCI's Div. of Cancer Prevention & Control provided a complete list of its preliminary spending plans for the $40 million increase in the prevention and control line item (**The Cancer Letter**, Dec. 3). The items listed in last week's issue did not add up to the full amount of the increase.

Here are the research programs and proposed amounts, adding up to $40 million.

Programs within DCPC:

—Chemoprevention research, $12 million.

—Community Clinical Oncology Program and Minority-based CCOPs, $9 million.

—American Stop Smoking Intervention Study, $4 million.

—Surveillance, Epidemiology & End Results program, $3.6 million.

—Prostate, Lung, Colorectal & Ovarian cancer screening trial, $2.8 million.

—American Assn. of Retired Persons breast and prostate project, $1.8 million.

—Five-A-Day diet and nutrition project, $600,000 to be spent by the Office of Cancer Communications.

Other NCI Programs:

—Div. of Cancer Biology, Diagnosis & Centers, $2.5 million to fund R25 cancer education grants with emphasis on minorities.

—Office of Cancer Communications, $2 million for Cancer Information Service contracts in the area of environmental and occupational cancer.

—Div. of Cancer Etiology, $1.2 million for a blood and pathology component of the PLCO trial.

—Div. of Cancer Etiology, $100,000 for a mammography project.

—DCBDC Cancer Centers Program, $400,000 for salary support for new cancer control leaders.

Northwestern's Lurie Center Wins NCI Support Grant

The Robert H. Lurie Cancer Center of Northwestern Univ. was the only new recipient of an NCI Cancer Center Support Grant in fiscal 1993.

The grant puts the Lurie Cancer Center on the list of 56 NCI-supported cancer centers.

The center will receive $3.4 million from NCI over the life of the grant, which expires in July 1996.

In addition to the NCI designation, the Lurie Center gathered several other distinctions in 1993. The center:

—Received the final payments of the $10 million endowment pledged by the late Robert Lurie and his wife.

—Received an American Cancer Society Institutional Research Grant of $132,000 for three years to support basic research.

—Became the headquarters for the Pediatric Oncology Group when Sharon Murphy, professor of pediatrics, was named POG chairman. The Lurie Center oversees the administration of the POG grant, $1.5 million annually.

—Was named one of the 16 vanguard centers for the NIH Women's Health Initiative. Philip Greenland, co-associate director for cancer prevention and control, is prinicipal investigator of the WHI at Northwestern Univ.

—Was selected by NCI to direct and implement the trials that were being conducted by the Illinois Cancer Center prior to that center's dissolution last year.

"It has been a very exciting period for us," said Lurie Director Steven Rosen, the Genevieve Teuton Professor of Medicine, Northwestern Univ. Medical School.

In another development, the breast cancer prevention expert V. Craig Jordan moved from Univ. of Wisconsin to Northwestern to become director of the breast cancer research program and co-associate director of the cancer prevention and control program at the Lurie Cancer Center, as well as professor of cancer pharmacology.

The Lurie Cancer Center provides care to patients at the five hospitals of Northwestern's McGaw Medical Center. The hospitals treat a combined total of 5,000 cancer patients each year.

In the cancer center's division of basic sciences, four groups of investigators in Chicago and Evanston are studying adhesion, motility, and angiogenesis; differentiation and development; hormone action and signal transduction; and molecular oncogenesis. The division of clinical sciences includes basic and clinical research programs in adult oncology, pediatric oncology, and HIV-associated malignancies. The programs in the division of cancer prevention and control research emphasize cancer prevention, palliative care and rehabilitation, and health care policy.

The center's division of shared resources provides technology and technical services that span Northwestern's Chicago and Evanston campuses. The NCI grant will support the following services available to the center's 225 members: analytical and quantitative cytology; biometry; biotechnology; central facilities, including media preparation and glassware washing; a protocols office/serum bank; a research histology/tumor bank; structural biology; transgenic animals; and two-dimensional electrophoresis.

NIH Advisors Reviewing $1.2 Bil. Intramural Program

Three internal NIH committees and an extramural advisory group are studying the Institutes' $1.2 billion intramural research program and are expected to write a report in time for Congressional appropriations hearings next spring, NIH Director Harold Varmus said last week.

Speaking at his first meeting of the NIH Director's Advisory Committee, Varmus said he views the Congressional request to look into the intramural program as "a chance to have a look at what we do here."

As a former extramural scientist, "I have sometimes looked at what goes on here with great envy," Varmus said.

The extramural advisory group,co-chaired by Paul Marks, president of Memorial Sloan-Kettering Cancer Center, and Gail Cassell, chairman of the microbiology department, Univ. of Alabama at Birmingham, has met twice this fall. The group is relying on information developed by the three internal committees in a process coordinated by Michael Gottesman, acting NIH director for intramural research. Gottesman is replacing Lance Liotta, who is returning to his laboratory at NCI.

Congress expects NIH to provide a report on the allocation of resources between intramural and extramural research, the criteria for judging the effectiveness of intramural programs, the size of the program with regard to personnel and space, the

quality of research, and the role of the intramural program in training, Varmus said.

Three internal committees, one each for basic science, clinical research and research infrastructure, are conducting internal "fact-finding," Gottesman said last week. The intramural program consists of about 1,300 to 1,400 independent research laboratories.

The Marks-Cassell committee at its meeting last October, listed three areas it wants to study in detail:

1. The process or processes currently employed to review the quality of the intramural program at all levels, from trainees to scientific directors.

2. The process by which the size of the scientific, administrative, and training components of the intramural programs is determined.

3. Evaluate organizational issues which are disincentives to the support of the highest quality research and training in the intramural programs.

Cassell said the committee would like to receive information from all levels of NIH personnel, not just those in authority.

According to Marks, the committee also will consider the goals of NIH and its unique contribution to research. "I don't get the feeling that the goals have been defined," he said.

NIH intramural research is investigator-driven, Gottesman said. In reviewing the program, "we could not make a convincing argument that this work could not be done extramurally," he said. "We clearly need to be thinking about the special role of NIH."

Final Cancer Letter For 1993, Next Issue Dated Jan. 7, 1994

This issue of **The Cancer Letter**, Vol. 19, No. 48, is the final issue of 1993. The next issue, Vol. 20, No. 1, will be dated Jan. 7, 1993. Best wishes for the holiday season and New Year.

Applications For AACR's Elion Award Are Due February 15

The American Assn. for Cancer Research is accepting applications for the 1994 Gertrude Elion Cancer Research Award.

The award is supported by a grant from Wellcome Oncology. Applications are due Feb. 15. The one-year grant to a non-tenured assistant professor supports meritorious basic, clinical, or translational investigations on cancer. Candidates must be nominated by a member of the AACR. Tenured faculty in academia, government employees, and employees of private industry are not eligible for this award.

Contact: Jenny-Anne Martz, Public Information Coordinator, AACR, Public Ledger Building, 620 Chestnut St., Suite 816, Philadelphia, PA 19106-3483, Tel. 215/440-9300, Fax 215/440-9313.

In Brief

ACS Medals To Banzhaf, Folkman; New ACS Officers

(Continued from page 1)

AMERICAN CANCER SOCIETY presented Medals of Honor to **John Banzhaf III**, founder and executive director of Action on Smoking and Health, and **Moses Judah Folkman**, Harvard Medical School, as well as **Denman Hammond**, Univ.of Southern California (**The Cancer Letter**, Dec. 3). Banzhaf was honored for his "unparalleled dedication to the anti-smoking movement," starting with his 1966 legal action that eventually drove cigarette commercials off TV and radio. Folkman received the medal for his work in understanding how tumors grow and metastasize, leading to the first clinical trials of anti-angiogenic therapy. . . . **LARRY FULLER** was elected chairman of the board of directors of the American Cancer Society at the Society's meeting last month in Atlanta. Fuller served as chairman of the board of the ACS Texas Div. He succeeds **Stanley Shmishkiss** . . . **IRVING FLEMING,** Univ. of Tennessee College of Medicine, was elected ACS president at the board's annual meeting. Fleming has served as president of the ACS Tennessee Div. He succeeds **Reginald Ho**. Other new ACS officers: **LaMar McGinnis**, Emory Univ. School of Medicine, was elected vice president and president-elect. He is past chairman of the board of the ACS Georgia Div., and an attending surgeon at DeKalb Medical Center. **George Dessart** is vice chairman and chairman-elect. **Raymond Lenhard Jr.** was elected chairman of the medical affairs committee. **Myles Cunningham** was elected vice chairman of the medical affairs committee. **Jennie Cook** is treasurer and **Edwina Thorn** is secretary. . . . **LOUIS JOSEPH BERNARD,** director, Drew-Meharry-Morehouse Consortium Cancer Center, was presented the American Cancer Society's Humanitarian Award for his accomplishments in human welfare and social reform pertaining to cancer. Bernard was instrumental in establishing many cancer control programs for the

disadvantaged. . . . **ACS DISTINGUISHED SERVICE** awards were presented to **Constance Engelking, Lawrence Garfinkel, Waun Ki Hong, Judith Johnson** and **Patricia Norby**. ACS Volunteer Leadership awards were presented to **Michael Butler, Frank Fisher** and **Curtis Mettlin**. . . . "**ONCOLOGY NURSING** Review: A Computer-Assisted Instruction Program," mentioned in this section Nov. 19, is available free of charge from any Glaxo Inc. representative, or by calling the Glaxo Education Resource Center, 800/824-2896. . . . **CORRECTION: George Jones**, chairman of the American Cancer Society's Questionable Methods Committee, was incorrectly identified in a story in the Nov. 26 issue of **The Cancer Letter**. . . . **FDA APPOINTMENTS: Mary Jo Veverka** was appointed Deputy Commissioner for Management and Systems of the Food and Drug Administration. She served as senior advisor to Commissioner David Kessler since May 1991 and has been responsible for improving management and organization of the agency and developing FDA's user fee program. **Jerold Mande** was appointed Executive Assistant to the commissioner, a new position. Mande joined the agency in 1991 as a supervisory policy analyst in Kessler's office. He became Acting Associate Commissioner for Legislative Affairs earlier this year.

NCI Announces Policy For Award Of Costly Studies

NCI has issued the following statement regarding acceptance of investigator-initiated research:

"NCI announces that any new or competing continuation investigator-initiated clinical trial, prevention or control intervention, or epidemiological study in which direct costs exceed $500,000 in any year (at a single institution or in the aggregate for a study proposing multi-institutional collaborative arrangements submitted as either subcontracts to a single application or as separate applications) will usually be awarded only as a cooperative agreement (U01).

"For single applications, the dollar limit excludes indirect costs of any subcontracts that are reported as a direct cost on the application budget page summary. Separate U01 awards usually will be made for individual applications submitted concurrently by institutions proposing a study involving a coordinated research effort.

"In addition, studies falling under the above guidelines requesting in aggregate in excess of $1,000,000 in direct costs in any single year will be administratively evaluated by NCI prior to peer review to determine if such a potential award could be accommodated within the Institute's scientific and fiscal plans for that budget year. If a potential award of such scope cannot be contemplated, the application will be returned without review."

The notice, published in the Nov. 26 "NIH Guide to Grants and Contracts," said the policy is effective immediately. Potential applicants for large research projects were encouraged to contact NCI prior to making detailed plans or submitting their applications.

Inquiries may be directed to the Director, NCI Div. of Extramural Activities, Executive Plaza North Suite 600, Bethesda, MD 20892, Tel. 301/496-5147, Fax 301/402-0956.

RFP Available

Requests for proposals described here pertain to contracts planned for award by the National Cancer Institute unless otherwise noted. Address requests for NCI RFPs to the individual named, Executive Plaza South room number shown, NCI, Bethesda, MD 20892. Proposals may be hand delivered to the Executive Plaza South Building, 6130 Executive Blvd., Rockville, MD.

RFP NCI-CP-40535-17

Title: Radiation dosimetry of epidemiologic studies

Deadline: Approximately March 1

The Radiation Epidemiology Branch of the Epidemiology and Biostatistics Program of NCI's Div. of Cancer Etiology is recompeting a requirement to continue dosimetry support for epidemiologic studies of populations exposed to ionizing radiation, conducted by the REB. The contractor shall evaluate the radiotherapy records collected by the REB and determine whether the data are adequate to calculate organ doses, and provide organ doses for individual study subjects ot the REB for analysis. The contractor shall provide the support necessary to make measurements on patients, anthropomorphic phantoms, mathematical phantoms, or water phantoms in order to reconstruct radiation doses to specific organs following medical exposures. The contractor shall: 1) determine the manner in which physical dosimetry can be best applied to the epidemiologic studies of interest, 2) coordinate dosimetry data collected or prepared by other medical physicists who are participating in studies, and 3) compare measured doses with calculated organ doses to validate consistency and accuracy of simulation models measurements to allow a separation of organ doses into the contribution from a) head leakage and collimator scatter and b) scatter within the patient from the useful beam.

Contract specialist: Laura Willmott, RCB Executive Plaza South Rm 620, Tel. 301/496-8611.

RFA Available

RFA CA/ES/AG-94-005

Title: **Breast cancer research programs in NCI-designated cancer centers**

Letter of Intent Receipt Date: Jan. 12

Application Receipt Date: Feb. 17

This RFA is sponsored by the Cancer Centers Branch of NCI's Div. of Cancer Biology, Diagnosis and Centers; the Chemical Exposures and Molecular Biology Branch, Div. of Extramural Research and Training of the National Institute of Environmental Health Sciences (NIEHS); and the Extramural Research Programs of the National Institute on Aging (NIA). The co-sponsoring Institutes announce the availability of planning and development grants for the purpose of developing and establishing broad, multidisciplinary research programs in breast cancer within existing NCI-designated cancer centers (i.e., those institutions currently awarded a Cancer Center Support Grant, P30).

The primary purpose of this RFA is to encourage Cancer Centers that do not currently have a formal breast cancer research "program" to develop and establish the research infrastructure for an organized, interactive activity within the center. A secondary purpose is to encourage cancer centers with established breast cancer research programs to expand their competitive research base by focusing on breast cancer in the elderly and/or on environmental factors affecting the incidence, morbidity, and mortality of breast cancer. In the primary area, emphasis should be placed on developing "programs" that will involve a broad array of research approaches in basic, clinical, and prevention and control research and that will have the potential for medical application and impact on reducing the incidence and mortality of breast cancer on a local, regional, and/or national level. In the secondary area, the center should already have a strong, broadly-based research "program" in place with potential for medical application, and emphasis should be placed on expanding the existing "program" to take advantage of research opportunities related to the elderly and/or to environmental factors. Under both purposes, the sponsoring Institutes will be particularly receptive to applications that include or involve a focus on the problem of breast cancer in underserved minoriy populations and populations of women that have disproportionately high death rates due to cancer.

Upon completion of these planning and development grants, it is anticipated that recipient institutions will either have a formal breast cancer research "program" in place or an expanded "program" addressing breast cancer in the elderly and/or environmental factors contributing to breast cancer. It is also expected that those "programs" will be sustained in the future through the same types of competitive funding sources that support other established programs in the Cancer Center.

Only institutions that are current recipients of Cancer Center Support Grants (P30) awards from NCI are eligible to apply. Two different levels of eligibility are as follows:

Option A:

1. Eligibility. Cancer Centers that currently have neither: a) an existing breast cancer research "program" or substantial breast cancer research activity equivalent to a program that is part of the CCSG-supported Cancer Center; or b) a Specialized Program of Research Excellence (SPORE) (P50) grant in breast cancer.

2. Purpose/Funds. These institutions may apply for up to $400,000 in total costs per year for up to four years for the purpose of developing a broadly based research program in breast cancer.

Option B:

1. Eligibility. Cancer Centers that currently already have either: a) an existing research "program" or substantial breast cancer research activity equivalent to a "program" that is part of the CCSG-supported Cancer Center; or b) a Specialized Program of Research Excellence (SPORE) (P50) grant in breast cancer.

2. Purpose/Funds. These institutions may apply for up to $150,000 in total costs per year to develop research activities focused on breast cancer in elderly women or on environmental factors influencing breast cancer. An institution may apply for both of these expansion components, but must provide separate applications for each. The maximum period of support will be four years.

Support of this program will be through the NIH exploratory grant mechanism (P20). The P20 Planning and Development Grant will support: 1) the partial salary of the Program Development Director; 2) funds for special retreats and meetings; 3) developmental funds for recruitment of new scientists; 4) developmental funds for pilot projects; and 5) expansion of an existing shared resource or development of a new shared resource.

Approximately $4.9 million is available to fund up to eight awards for approxomately $400,000 total costs per year. For those Centers applying for expansion of their existing programs, up to 12 subcomponents could be awarded at $150,000 total costs each per year. The total project period is limited to not more than four years. The earliest possible start date will be September 30, 1994.

Inquiries: Dr. Margaret Holmes, Div. of Cancer Biology, Diagnosis, and Centers, NCI, Executive Plaza North Room 502, Bethesda, MD 20892, Tel. 301/496-8531, Fax 301/402-0181; Dr. William Suk, Div. of Extramural Research and Training, National Institute of Environmental Health Sciences, PO Box 12233, Research Triangle Park, NC 27709, Tel. 919/541-0797, Fax 919/541-2843; Dr. Rosemary Yancik, Assistant Director for Liaison and Applied Research, National Institute on Aging, Bldg 31, Rm 5C05, Bethesda, MD 20892, Tel. 301/496-5278, Fax 301/496-2793.