

THE

CANCER LETTER

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ASCO, AACR Hold Last Joint Annual Meeting, Vow To Encourage Basic-Clinical Interactions

Significant changes are taking place in the two major cancer professional organizations, the American Society of Clinical Oncology and the American Assn. for Cancer Research.

The groups held the final of their back-to-back annual meetings in Orlando, FL, last week. AACR, the older organization, decided last year
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In Brief

Moffitt Center Makes Major Recruitment Effort; Komen Foundation Invites Award Nominations

H. LEE MOFFITT Cancer Center & Research Institute, at the Univ. of South Florida, has recruited several new staff: **Julie Djeu**, Univ. of South Florida College of Medicine, was named director of immunology. **Kenneth Zuckerman**, Univ. of Alabama at Birmingham, was named director of the Div. of Medical Oncology and Hematology and chief of medicine. **Paul Chervenick**, executive vice president for medical and scientific affairs at City of Hope Medical Cancer, joins the leukemia/lymphoma program, and will lead the center's efforts to enhance clinical research at Tampa General Hospital. **Joseph Ransohoff**, chairman of the Dept. of Neurosurgery, New York Univ. School of Medicine, joins Moffitt's neuro-oncology program. **Ronald DeConti**, chief of oncology at Albany Veterans Administration Hospital, and **John Horton**, former head of the Div. of Medical Oncology, Albany Medical College, join Moffitt's medical oncology division. **Robert Sackstein**, assistant professor at Univ. of Miami School of Medicine, joins Moffitt's research staff. . . . **SUSAN G. KOMEN** Breast Cancer Foundation invites nominations for the 1993 Brinker International Awards for Breast Cancer Research. Two awards will be given to honor outstanding individuals for their achievement in the field of breast cancer research, one in basic science and one in clinical science. The awards will include a \$10,000 honorarium. Nominations must be postmarked by July 23. For nomination forms or further information contact the foundation, 5005 LBJ Freeway, Suite 370, Dallas, TX 75244, phone 214/450-1777, fax 214/450-1710. The foundation recently gave Rep. **John Dingell** (D-MI) The Komen Foundation Award for his leadership on the Mammography Quality Standards Act of 1992. . . . **US TOO**, prostate cancer support group, plans to establish new chapters in 100 metropolitan areas nationwide. The announcement was made in a press conference with Sen. **Robert Dole** (R-KS) and Sen. **William Roth** (R-DE), both prostate cancer survivors. The group has chapters in 37 states and six countries.

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ASCO, AACR Call For Stronger Interaction, Translational Research

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to meet separate from ASCO beginning in 1994. Yet, the leadership of both organizations expressed hope that their ties would not be severed, but strengthened, with greater opportunity for interaction among basic and clinical researchers.

"We feel it is essential to develop areas of regular communication with ASCO," Lee Wattenberg, who completed his term as AACR president, said to the AACR membership.

The AACR board of directors approved a standing committee on clinical investigations to review and suggest ways of improving the association's interaction with clinical researchers.

ASCO's Bernard Fisher urged the society define clinical research broadly.

"Research that is leading edge, has possible clinical relevance, and can be translated, must be included in the ASCO portfolio," Fisher said. "ASCO must provide a conducive forum for the physician-scientists who are the great translators. It must also embrace the basic scientists, molecular biologists and geneticists who not only have the facility of making their investigations come alive, but will contribute to the milieu that will keep physicians and non-physician scientists coming to ASCO meetings."

ASCO's meeting next year will be four days rather than three to include more educational sessions, particularly in so-called "translational research." Attendance at ASCO this year was 12,500, far exceeding last year's 9,000. Membership in ASCO is 9,500.

Not only are ASCO-AACR interactions changing. The organizations individually are examining their purposes and directions.

ASCO recently completed a membership survey which will result in major organizational changes, such as the hiring of a chief staff officer and moving its headquarters from Chicago to Bethesda, MD (*The Cancer Letter*, April 23).

AACR this year will begin a self-assessment, said the association's new president, Margaret Kripke. Attendance at AACR was 6,500, and the association has 8,700 members, double that of a decade ago.

"What we have achieved in the last 10 years is really breathtaking," Kripke said to the association's business meeting. "It's time to stop and catch our breath. Is the annual meeting really serving the needs of the entire membership?"

The AACR board will hold a retreat in the fall discuss the association's future, Kripke said. She invited members to submit their ideas to her, at M.D. Anderson Cancer Center.

Reminding the participants why AACR decided to separate its meeting from ASCO's, Kripke said few AACR members were registering for the ASCO meeting. "The expectation that people would come to both meetings was unreasonable and not happening, and not worth the logistical difficulties," she said. Next year, AACR meets in San Francisco in April, about four weeks prior to the ASCO meeting in Dallas.

At the business meeting, AACR members Sharon Murphy and John Yarbrow argued for holding the AACR meeting in the fall. Kripke asked for a show of hands. The majority favored a spring meeting. Kripke said she may ask for a poll of the full membership on this issue.

'Who Has A Voice In ASCO?'

Fisher, in his address as ASCO's 29th president, commented on the question of ASCO's role:

"At onset of my presidency I was really perplexed. I heard from ASCO members who believed the mission of ASCO is changing. Some claimed it is increasingly concerned with government issues or education at the primary level and has become an advocacy organization speaking for better reimbursement for private practice medical oncologists.

"On the other hand, private practice medical oncologists indicated their concern that ASCO doesn't speak for them or provide them for a forum to address the issues that most affect them," Fisher said. "They believe that to meet their needs, they are forced to turn to state oncology societies or political action groups. In their view, ASCO speaks primarily for research and academically oriented oncologists.

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Radiation, surgical, pediatric, and gynecologic oncologists told me that ASCO doesn't provide a forum and a voice for their colleagues.

"I began to wonder, who has a voice in ASCO, who is ASCO speaking for, or does everybody have laryngitis?"

Since ASCO is growing, these "contradictory complaints might be ignored," Fisher said. However, two events preclude this: the separation of the ASCO and AACR annual meetings, and public issues including health care reform. "Both could seriously affect the direction of this organization," Fisher said.

The separation of the meetings "was initiated and carried out unilaterally by the governance of AACR," Fisher continued. "Whether discontinuing the combined meetings is due to political or economic factors, or because back-to-back meetings are too much of an endurance contest for attendees, is uncertain.

"There is reason to believe, however, that the separation may, at least in part, be related to the perception by AACR that the mission of ASCO is changing, that it is directing its course toward private practice issues and that it is abandoning its scientific objectives, creating a void that needs to be filled by AACR.

"Is that perception correct, or is it a misconception?" Fisher asked. "My term in office has convinced me that the primary objective of ASCO remains intact. It's bruised, it does need cosmetic surgery, and it can use more calories. But the commitment to promote and provide a forum for oncologic research continues."

Defining Clinical Research

Fisher said he was surprised to learn recently that many ASCO members consider clinical research "a euphemism for clinical trials."

However, investigation "not employing clinical trials, but having or likely to have clinical relevance must also be included under the rubric of clinical research," Fisher said. "In essence, there is such an entity as clinical research. It's readily distinguishable from fundamental research, which is nontargeted and non-goal oriented, with no clinical relevance real or imagined.

"Beyond that distinction, it's not easy to distinguish between basic and clinical research. How particular research is viewed often depends on the depth of understanding of the research under consideration. To improve that understanding there has come into being what is called translational research or translational science."

A better term is "translation of research," Fisher said.

"Simply speaking, its purpose is to convey in understandable language, to scientists working in other areas of investigation or those who take care of patients, what a particular area of research is about and how its findings immediate or future have clinical relevance," Fisher said.

"A major benefit for those who listen to the translationists is that in the course of listening, something, in a flash, an association between something said and something that the listener may have thought about can occur, giving birth to a new and independent thought and direction for research, as well as to have such knowledge applied to the problems of patients," Fisher said.

"Many think that those kinds of fresh new ideas and directions can simply be purchased, if only Congress would appropriate yet another \$100 million," Fisher continued. "What a fatuous idea.

"I agree with those who express concern about ASCO and its relation to research. I agree because I passionately believe that the vitality, integrity and justification for this organization as it moves into the next millennium depends on how well clinical research with an expanded definition envelopes the membership of this organization," Fisher said.

'Bureaucrats, Administrators & Politicians'

"The widening gap between the clinician and the investigator could be a greater threat to welfare of patients than are the bureaucrats, administrators and politicians, the BAPs," Fisher continued. "As they become more and more subsumed by the BAPs and what they stand for, clinicians get further and further away from science where the hope for the cure and prevention of cancer resides.

"Greater becomes the threat that the circumstances described by George Orwell in Animal Farm may become a reality. He contended that everything is created to become different, but eventually it all becomes the same. In the end, the farmers and the pigs were indistinguishable. It can be guaranteed that BAPs will not become like clinicians. But without the clinicians' allegiance to science it cannot be guaranteed that the clinicians will not become indistinguishable from the BAPs.

"I plead with you not to deride any aspect of science, be it fundamental, basic or clinical, and to remember that clinical trials are a mechanism for carrying out clinical research.

"By the same token, to discredit one kind of research to raise money for another, whether such action is perpetrated by the clinicians, laboratory scientists or public advocates, is sophistry at its worst.

"For 25 years, the credo of the NSABP has been that when members enter the meeting hall, their personas change. They become more than clinical oncologists. They become clinical investigators, thinking about and contributing to the research being conducted. Whatever success the NSABP has had relates in no small part to that transformation," Fisher said.

"ASCO must also be able to transmit that aura to you when you enter these halls, so that you are similarly motivated to become participants rather than voyeurs of science."

Fisher said the most difficult part of his "journey" as ASCO president was entering "public issues and health care reform country," characterized by faxes, letters, newspaper clippings, and ringing telephones, "emanating from a spot called the Washington office."

"How the critics who considered ASCO to be too academic, too research oriented, and not sufficiently concerned about public and practice issues got that idea escapes me," Fisher said. "I admit that when I started this aspect of my journey I was less than enthusiastic about ASCO's role in the public issues arena. I was convinced that such involvement could only distract ASCO from its primary mission of supporting research and education directed at curing and preventing cancer. I was fearful that the political process and publicity associated with such efforts could achieve clonal dominance and destroy the host.

"I soon learned, however, that in these chaotic times, one needs a mechanism to fend off the rascals who mine the road to progress with misguided causes they espouse with the fervor of zealots, or with agendas that are totally self-serving.

"I believe that ASCO should be used as a bully pulpit to express its position on selected public issues relevant to its major mission, which is the preservation and promotion of science. But ASCO should be forever vigilant that it is not so involved that it becomes, once again using the metaphor of Animal Farm, indistinguishable from those it is opposing."

Capitol Notes

NIH Bill Slated For House Vote; Authorizes \$2.7 Billion For NCI

After two months of deliberations, a House-Senate conference committee has hammered out a compromise version of a reauthorization bill for National Institutes of Health.

A House vote on the measure was expected this week.

If approved, the new law would authorize an appropriation of \$2.728 billion for NCI, \$586 million above the President's budget request. Earlier versions of the legislation authorized funding of NCI at the bypass budget level of \$3.2 billion. The authorization measures, while separate from appropriations, offer a reliable indication of Congressional priorities and expectations.

The compromise bill authorizes:

▶ A \$225 million increase in funding for "basic research on the etiology and causes of breast cancer" in fiscal 1994;

▶ A \$100 million increase for other breast cancer research, including clinical research, information and education programs and funding for six research and demonstration centers focusing on breast cancer research;

▶ A \$75 million increase in research in other gynecological cancers;

▶ A \$72 million increase in prostate cancer research;

▶ NCI is directed to spend no less than 7 percent of its budget on cancer control programs.

By 1996, the year NIH would have to return to Congress for another reauthorization measure, NCI would be obligated to spend 10 percent of its budget on cancer control.

The conference report's language on NCI priorities follows:

"The authorization of appropriations reflects the conference's endorsement of the FY 1994 recommendations contained in the Institute's bypass budget," the report said. "In advocating a significant and overdue increase in funding for NCI, Congress notes serious concern about the growing epidemic of breast and prostate cancer and expects NCI to make prevention of breast and prostate cancer its top priority."

Cancer Control

The conferees concurred with the House amendment which provided for a three-year incremental increase in the set-aside for cancer prevention and control, to be carried out by the NCI Div. of Cancer Prevention and Control.

According to the report:

"In carrying out this authority, the Conferees expect the NCI Director to assure that DCPC is concentrating its limited resources on prevention of cancer and reducing the incidence of cancer by modifying risk factors through changes in behavior.

"The conferees are particularly interested in seeing DCPC fund initiatives such as:

► "Large scale community intervention trials to study methods of reducing the risk and mortality of cancer;

► "Community and physician education programs to determine effective methods of encouraging screening;

► "Psychological interventions to improve quality of life and increase treatment compliance.

"Particular attention should be given to underserved populations, including racial and ethnic minorities, inner city and rural populations, elderly and low literacy.

"The conferees expect NCI, acting through DCPC, to assume increasing leadership in the demonstration, implementation and operation of programs to reduce or control the incidence of cancer.

"NCI is also expected to work with the Centers for Disease Control and Prevention in implementing projects to reduce the behaviors that put citizens at risk.

"The conferees expect that increased funding available for control activities through DCPC in FY 1994 will be used to fully fund each of the existing 17 ASSIST [American Stop Smoking Intervention Study] states and support related programs in each of the 33 states without ASSIST programs.

"Full funding and nationwide implementation of ASSIST can be achieved under the conference agreement. Such commitment of resources will play an important role in reducing the incidence of cancer throughout the U.S.

"In addition, the conferees encourage NCI to intensify and expand support for cancer control programs that target special high risk populations which experience excessive cancer rates and are underserved in terms of cancer control programs, such as NCI's minority-based Community Clinical Oncology Program, cancer leadership initiatives and the Community Clinical Oncology Program.

"Findings from programs such as ASSIST, the Surveillance, Epidemiology, End Result registries and special populations studies are important for the continued improvement of the nation's cancer control efforts.

"The conferees also expect NCI to expand its commitment of resources to prevention research to accelerate the understanding of such issues as the role of dietary fat in various cancers, identifying improved methods of early detection of breast and other cancers and increasing the knowledge of preventable risk factors for breast and other cancers.

"The conferees also agreed to strengthen existing cancer control directives by authorizing NCI to give priority for breast cancer programs using community

based initiatives designed specifically to assist women who are medically underserved."

In other highlights of the legislation:

► The controversial provision mandating a study of "environmental and other potential factors" contributing to breast cancer in Nassau and Suffolk counties in the state of New York as well as in two other northeastern counties found through SEER to have the highest breast cancer incidence, has survived the conference.

However, the controversial provision, which originated with Rep. Henry Waxman (D-CA), chairman of the subcommittee on health and the environment of the energy and commerce committee, was modified to extend NCI's deadline for completion of the study. The study is to be conducted by NCI and the National Institute of Environmental and Health Sciences.

"The conferees have identified NIEHS to participate in the planning and funding of this study because of the agency's contributions to research on the adverse health effects of environmental pollutants," the report said.

► The conferees wrote that they expected the NIH Office of Alternative Medicine to coordinate its efforts with those of other countries and "pay particular attention to activities that emphasize ethnomedicine," the report said.

OAM was further instructed to sponsor a fellowship whose participants would "have the opportunity to engage in program and policy analysis as well as perform clinical research in alternative medicine."

► The bill established the Office of AIDS Research that will coordinate AIDS activities throughout NIH. The advisory board for that office will include representatives of NCI and NIAID.

The provision also established an emergency discretionary fund "to meet emerging opportunities for new or enhanced funding of research, including approved but unfunded projects whose increased importance becomes clear during the year."

Two Of Three Americans Support Higher Cigarette Tax, Survey Finds

Two out of three Americans support increasing the federal tax on cigarettes by \$2 a pack and using the revenue to help fund national health care, according to a survey by the American Cancer Society.

Currently, two bills, H.R. 1246 and S. 513, seek to increase the cigarette taxes by \$1 per pack. The bills were introduced by Rep. Michael Andrews (D-TX) and Sen. Bill Bradley (D-NJ).

While the Coalition on Smoking OR Health, which includes ACS, the American Heart Assn. and the American Lung Assn., supports the two bills, it continues to advocate a tax increase of at least \$2 per pack.

According to Capitol Hill sources, Andrews and Bradley have indicated that they would be open to increasing the excise if they sensed a support for a higher tax.

Now, armed with the latest survey results, the coalition is in a position to argue that the support for the tax is strong and widespread.

"We support the idea of no new taxes, except a major cigarette tax increase," Alan Davis, chairman of the coalition and the ACS vice president for public affairs, said to **The Cancer Letter**. "This is the only tax that the public enthusiastically supports."

The survey, conducted by Marttila & Kiley Inc. of Boston, found that:

- ▶ Support for increasing cigarette taxes is as strong among conservatives and Republicans as among liberals and Democrats.

- ▶ African-American voters are nearly as likely as white voters to support a \$2 increase. Hispanic voters are especially likely to support raising the cigarette tax. A majority of voters with incomes under \$20,000 favors a \$2 increase in the tax as well, the survey found.

- ▶ Support for a \$2 per pack cigarette tax increase is nearly as strong in the leading tobacco-producing states of Georgia, Kentucky, North Carolina, South Carolina, Tennessee, and Virginia as in the rest of the country.

- ▶ Americans are more inclined to support a cigarette tax increase if they believe that it will effectively reduce smoking rates in this country.

- ▶ One out of six Americans realize that cigarette taxes in the U.S. are significantly lower than in other developed countries.

- ▶ The most compelling arguments in favor of a \$2 increase are that it will raise needed revenue to provide health insurance for the uninsured; that cigarette smoking is the leading cause of preventable death in the U.S.; and that smoking costs the U.S. \$65 billion a year in extra medical expenses and lost wages.

- ▶ Support for the tax is exceptionally firm and not easily subject to dissuasion. Even after hearing nine negative arguments against raising the cigarette tax, public support for a \$2 increase falls by only two percentage points.

- ▶ Americans' greatest concerns about increasing

cigarette taxes are that Congress will misuse the revenue or that a black market for cigarettes may develop.

- ▶ There is little public understanding of the fact that smoking kills more Americans than car accidents, fires, murders, suicides, alcohol, illegal drugs, and AIDS combined.

- ▶ Nearly three of four Americans (72 percent) believe that secondary smoking causes cancer and other diseases.

- ▶ The tobacco industry has one of the worst images of any major industry in the U.S., with 73 percent of respondents stating that they viewed the tobacco companies unfavorably. This rate of approval place the industry in worse standing than insurance industry (viewed unfavorably by 62 percent), the alcoholic beverage industry (55 percent) and the pharmaceutical industry (49 percent.)

The survey included 1,000 respondents nationwide.

"Trust Fund" Proposed To Increase Funding Of Biomedical Research

A novel approach to government financing of medical research through establishment of a \$6 billion "trust fund" is gathering steam on Capitol Hill.

If enacted, the trust fund would double the amount the U.S. spends on biomedical research, a prospect that seems to have attracted the support of a number of research organizations and patient groups.

The trust fund's chief proponent has been Sen. Tom Harkin (D-IA), chairman of the Senate Appropriations Committee.

Later this week, Harkin and Sen. Mark Hatfield (R-OR), the committee's ranking Republican, are expected to describe their plans in greater detail.

Earlier this month, in an op-ed piece in "The New York Times," Harkin described how his trust fund would fit into the framework of the proposed health care reform:

The funding for research would come from a \$5-a-month set-aside from insurance policies that are likely to cover every American family after health care reform is enacted.

Since about 100 million policies are expected to be issued, the revenues raised would amount to \$6 billion, Harkin wrote.

"Although this cost would likely be passed along to consumers, it is a small price to pay for the possibility of eliminating cancer and other diseases," Harkin wrote ("The New York Times," May 12). "Congress would allocate money out of the trust fund for the National Institutes of Health."

NCI Program Announcement

PA-93-083

Title: **Studies on the prevention, etiology, control, biology, diagnosis, or treatment of breast cancer**

Despite significant strides in prevention, diagnosis, and treatment, breast cancer continues to be a leading cause of death in the U.S. It has been estimated that approximately 46,000 women will die of breast cancer in the U.S. in 1993 and that about 18 percent of all female cancer deaths in the U.S. will be due to malignancies of the breast. The average U.S. mortality rate for breast cancer is 27.5 per hundred thousand. Of particular concern are recent data that point to an unexplained increase in breast cancer incidence and mortality rates. The long-term threat to women's health cannot be understated, since the incidence of breast cancer rises with age. Without vigorous efforts to develop improved cancer prevention, detection and treatment strategies, as advances in other areas of medicine extend average lifespan, the nation faces a continuing breast cancer crisis of increasing magnitude as the baby boom population cohort ages.

The Congress has expressed continued concern about the growing epidemic of breast cancer. In the most recent appropriation, the Conferees have urged, in the strongest way, that NCI make breast cancer one of its highest priorities. This disease is expected to be a continuing priority and focus of the Congress for the foreseeable future. NCI has devoted, and will continue to devote, significant resources to studies of breast cancer. However, not only does a great deal remain to be accomplished so that more effective preventive, diagnostic, and therapeutic modalities can be established, but much more emphasis on pertinent basic research is also necessary.

This program announcement is one of several ongoing or planned initiatives that should, in the strongest way possible, serve to notify and reaffirm to the scientific community the continuing commitment of NCI to expanding research support in basic and applied studies of the etiology, biology and immunology, genetic regulation, diagnosis, treatment, assessment of demographics, patterns of care, and strategies for control and prevention of breast cancer.

Research grant applications may be submitted by domestic and foreign, for-profit and non-profit organizations, public and private. The institute is especially interested in receiving applications from women and from minority investigators. Foreign institutions are not eligible for the First Independent Research Support and Transition (FIRST) award (R29).

Support of this program will be through the research project grant (either single or interactive R01), program project grant (P01), FIRST award (R29), as well as through competing supplemental awards to currently active research project grants (R01, P01), Cooperative Agreements (U01) or Method to Extend Research in Time (MERIT) Awards (R37).

The purpose of this program is to provide support for investigators to pursue promising avenues of research addressed to all areas of basic, clinical and applied research relevant to breast cancer. Applications will be accepted within all of NCI's extramural program areas relevant to breast cancer as outlined below. In addition to basic research projects, NCI strongly urges the submission of competing applications proposing novel projects that represent laboratory-to-clinic transitions in breast cancer or that offer the opportunity for participation of women or under-represented minority individuals. Interdisciplinary collaborations between geneticists, molecular biologists, epidemiologist, environmental health scientists, public health officials and others are especially encouraged, either through the program project mechanism, or through the interactive research project grant.

NCI is composed of four programmatic divisions that support extramural research relevant to this program announcement. The spectrum of research relevant to breast cancer encouraged by these divisions is as follows:

--Div. of Cancer Etiology plans and directs a national program of basic and applied research, including laboratory, field, epidemiologic and biometric research on the cause and natural history of breast cancer and the means for preventing such cancer, and evaluates mechanisms of cancer induction and promotion by chemicals, radiation, viruses and environmental agents. Epidemiologic research activities appropriate to this program announcement include assessment of the relative contributions and interactions of lifestyle, diet, environment, occupation, genetic factors, viruses, radiation, and/or metabolism on breast cancer risk; identification, validation and epidemiological assessment of markers/indicators of environmental, occupational, dietary, radiation, chemical and/or hormonal exposures likely to play a role in the etiology of breast cancer. Appropriate studies in biological carcinogenesis include: elucidation of the potential role of viruses and/or other biological agents in human breast cancer, including initiation of animal model systems, investigations of the changes in the structure or regulation of viral oncogenes, tumor suppressor genes, and other cellular genes relevant to the development of breast cancer, and development of microbial vectors such as bacteria and viruses that target breast tissues. Studies in chemical and physical carcinogenesis include integrated multidisciplinary laboratory investigations in carcinogenesis and its prevention using human tissues, whole animal, or in vitro systems; identification, quantitation and validation of biological, chemical, cellular and molecular markers for temporal stages of preneoplasia and neoplasia and their inhibition; synthesis, identification, characterization and mechanism of action of inhibitors of breast carcinogenesis, including natural inhibitors in the human environment; determination of the role of changes in the structure/regulation of oncogenes, tumor suppressor genes, and other cellular genes to the development, progression and biologic behavior of breast cancer induced by chemical and physical agents; and studies on the roles of protein, peptide and steroid hormones, and growth factors, in the development and progression of breast cancer.

--Div. of Cancer Biology, Diagnosis, and Centers supports research on the cellular and molecular biology of malignant cells, the role of the immune system in tumor growth and progression, and on the transfer of basic research findings to clinical application for improved diagnosis/prognosis of cancer. In breast cancer biology, areas of emphasis include, but are not limited to: the various growth factors and their receptors that contribute to the growth and progression of human breast cancer, the target genes in malignant and normal breast epithelium whose expression is regulated by the estrogen or progesterone receptor, the cellular mechanisms responsible for the action of tamoxifen on breast cells, the interplay of stromal and extracellular matrix components with breast epithelium in facilitating breast cancer growth and progression, and the identification of genetic modifications associated with the progression from early stage cancer to more malignant tumors and the related functional changes that occur in the affected cells. Of special interest are applications that utilize human breast tumors and tumor cells to pursue these research goals. In the area of cancer immunology, specific interests include, but are not limited to: identification and characterization of breast cancer antigens recognized by T lymphocytes, functional significance of leukocyte infiltrates in breast cancer, cytokine influences on immune responsiveness to tumor,

neuroendocrine-immune interactions, immune mechanisms in tumor dormancy, immune control of tumor metastasis and tumor modulation of host immune function. Studies are specifically solicited for further research in these areas of immunology aimed at the eventual development of vaccines for the primary or secondary prevention of breast cancer. Cancer diagnosis emphasizes evaluation of predictive markers for breast tumors to aid therapeutic decision making, of markers for monitoring the response to therapy and the earlier detection of recurrent tumors, and identification of individuals at risk for developing breast cancer.

--Div. of Cancer Prevention and Control plans, develops, directs, and coordinates research on prevention, control, and community oncology. Representative studies involve the identification and evaluation of agents that may inhibit carcinogenesis (initiation, promotion, transformation, and/or progression). These studies could include identification of appropriate agents through literature searches or laboratory methods, efficacy and toxicology studies in animals to aid in selection of materials for human studies, and phase I and II clinical trials of potential preventive agents. Initiation, validation and clinical testing of biomarkers, and their modulation for prevention and early detection also are appropriate. Other research could focus on reduction of cancer morbidity and mortality through early detection including identification of biological markers of risk, exposure, and pre-malignant events of progression. Research on the roles of nutrients, food groups, and other dietary components in cancer incidence is appropriate including the influence of dietary factors on the modulation of cancer risk markers or intermediate endpoints. Cancer control includes research on the development and testing of intervention strategies to modify personal, social, and lifestyle factors known to contribute to the development and/or increased risk of cancer, and multidisciplinary intervention research aimed at addressing minority, undeserved, and other special populations. Research under the program announcement also may include data collection, statistical analysis and mathematical modeling, health services research, and information database linkage studies to monitor progress toward cancer control, particularly pertaining to the PHS "Healthy People 2000" National Goals.

--Div. of Cancer Treatment plans, directs, and coordinates an integrated program of preclinical and clinical cancer treatment research with the objective of curing or controlling cancer in humans by utilizing single or combination treatment modalities. Breast cancer requires multi-modal treatment for optimal management of all stages and presentations of disease, but these treatment methods cause serious morbidity and fail to cure most patients with advanced disease. In preclinical breast cancer treatment research, there is an urgent need to translate recent developments in the molecular biology of cancer into the discovery of new anticancer treatments whose actions will be highly specific for particular genes or gene products. Exciting areas that may be exploited include oncogenes such as the HER-2/neu oncogene in breast cancer, suppressor genes, signal transduction, cell cycle regulation, growth factors/receptors, metastasis, and angiogenesis. Several approaches will be necessary to take advantage of these new opportunities. Additional topics include, but are not limited to, drug discovery of new anticancer agents, biochemical and molecular mechanisms of antitumor drug action, and pharmacology and toxicology of antitumor agents. Studies to circumvent individual and multiple drug resistance and prevent metastasis of these cancers to other organs are included. Clinical research opportunities exist in the areas of high-dose chemotherapy followed by autologous bone marrow rescue, multidrug resistance, radiosensitizers, adjuvant chemotherapy,

innovative surgical or multi-modal approaches, particle beam irradiation, novel immune therapies and genetic manipulations of host or malignant tissues, therapy with biological products, such as interleukins, monoclonal antibodies, and/or retinoic acid. Studies of microbial vectors such as vaccinia virus, retroviruses, adenoviruses and salmonellae as potential targeting and delivery vehicles in experimental therapeutics also are appropriate. Applications that address these opportunities for breast cancer are specifically solicited.

Inquiries are welcome and may be directed to the NCI Referral Office, Div. of Extramural Activities, NCI, 6130 Executive Blvd, Room 636, Bethesda, MD 20892, Tel. 301/496-3428, Fax. 301/402-0275.

Cancer Meetings For June, July

Pharmacy Symposium on Cancer Chemotherapy--June 3-5, Houston, TX. Contact Cindia Stauss, phone 713/792-2222.

American College of Oncology Administrators National Management Conference--June 4-5, Nashville, TN. Contact ACOA, phone 313/540-4310.

NCI Div. of Cancer Treatment Board of Scientific Counselors--June 7-8, NIH Wilson Hall. Open 8:30 a.m.-5:45 p.m. June 7 and 10:30 a.m.-11:15 a.m. June 8.

International Conference on AIDS--June 7-11, Berlin, Germany. Contact Scientific Secretariat, phone 49-30-834-2776, fax 49-30-834-3061.

Endocrine Society Annual Meeting--June 9-12, Las Vegas, NV. Contact the society, phone 301/571-1800.

International Conference on Malignant Lymphoma--June 9-12, Lugano, Switzerland. Contact Prof. F. Cavalli, Ospedale San Giovanni, 6500 Bellinzona, Switzerland, Tel. 092-26-9111.

Nutrition Conference--June 11-12, Houston, TX. Contact Shirley Roy, phone 713/792-2222.

Pharmacological Approaches to the Treatment of Chronic Pain--June 12-15, Monterey, CA. Contact CME Office, Univ. of California, phone 415/476-5808.

NCI Div. of Cancer Biology, Diagnosis & Centers Board of Scientific Counselors--June 14-15, NIH Bldg. 31 Conf. Rm 8. Open 8:30 a.m.-1 p.m. June 14 and 2:30-3:15 p.m. June 15.

The Molecular Basis of Cancer--June 18-20, Frederick, MD. Contact Margaret Fanning, phone 301/898-9266.

Annual Meeting on Oncogenes--June 22-26, Frederick, MD. Contact Margaret Fanning, phone 301/898-9266.

Midwest Oncology Workshop--June 23, Indianapolis, IN. Contact American Cancer Society, phone 317/879-4100.

President's Cancer Panel Special Commission on Breast Cancer--June 25, Hollywood Roosevelt Hotel, Hollywood, CA. Open 11 a.m.-5 p.m.

Bone Marrow Transplantation--July 16, Baltimore, MD. Contact Johns Hopkins, phone 410/955-2959.

Anticancer Drug Discovery & Development--July 22-24, San Diego, CA. Contact Dr. Frederick Valeriote, Wayne State Univ. School of Medicine, phone 313/745-8252.

Y-ME National Breast Cancer Conference--July 22-23, Chicago, IL. Contact Y-ME, phone 708/799-8332.

Radiation Therapy Oncology Group--July 23-25, Philadelphia. Contact Nancy Smith, phone 215/574-3205.

Cancer Research in San Antonio--July 23, San Antonio, TX. Contact Kathy Johnson, phone 210/677-3850.

President's Cancer Panel--July 30, Hyatt Regency La Jolla, San Diego, CA. Open 8:30 a.m.-1 p.m. Topic: Cancer and the Family.