4:1143 LETTER

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Rewritten Five Year Plan For Centers Is Greeted Warmly By NCAB Committee

Cancer center directors did not like the first version of the five year plan for centers which had been drafted by a group heavily weighted with NCI staff members. They let NCI know of their displeasure, and when that draft was presented to the National Cancer Advisory Board's Centers Committee, it was tossed out and the decision was made to start over (The Cancer Letter, March 9). The task of rewriting the plan was given to the ad hoc committee of center directors, elected by centers, (Continued to page 2)

In Brief

La Jolla Foundation Receives Donated Buildings; Sinks Named Medical Director, Middlesex Hospital

CALIFORNIA FOUNDATION for Biochemical Research has donated two research buildings, valued at \$2 million, to the La Jolla Cancer Research Foundation. The California Foundation has leased the facilities to La Jolla Foundation since 1978. The donation will allow additional funds to be directed to cancer research programs, La Jolla officials said. . . . LUCIUS SINKS has accepted the newly created position of cancer center director of the Middlesex Memorial Hospital in Middletown, CT. Sinks has been a professor of pediatrics at Georgetown Univ. since retiring as chief of NCI's Cancer Centers Branch last year. He plans to start his new job by Aug. 1. The hospital is a 380-bed regional medical center between Hartford and New Haven. . . . RESEARCH FELLOWSHIPS in cancer epidemiology and biostatistics are available from NCI's Div. of Cancer Etiology. The program offers up to three years of research and training in the distribution, causes, natural history and means of preventing cancer. Emphasis is placed on multidisciplinary approaches to study environmental and host risk factors. Contact Dr. Joseph Fraumeni or Dr. Michael Alavanja at 301/496-1611 for more information. . . . JOSEPH PISTORIUS has been appointed director of development for the Oncology Nursing Foundation. Prior to taking the new position, Pistorius was executive administrator of Allegheny Podiatry Medical Centers in Pittsburgh, PA. . . . CHARLES MEINHOLD was named president elect of the National Council on Radiation Protection & Measurements at the council's recent annual meeting. NCRP, based in Bethesda, MD, is a nonprofit organization created by Congress to collect, analyze and disseminate information on radiation protection and measurement. Meinhold is chief of the Radiological Sciences Div., Dept. of Nuclear Energy at Brookhaven National Laboratory.

April 27, 1990

Vol. 16 No. 17

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Owens Rewrites Plan For Centers. **Greeted Warmly By Committee**

(Continued from page 1)

with minimal help from NCI. Albert Owens, director of the Johns Hopkins Cancer Center, agreed to chair that committee.

Owens decided he had heard enough at the NCAB committee meeting, and directly from the centers, to do a rewrite without calling a meeting of the ad hoc committee. He presented the new version last week to the NCAB committee, also attended by members of the ad hoc centers committee, and it appeared that this one will fly.

The group made a few relatively minor changes in Owens' text, agreed that he could go through the first draft and pick up relevant items which had not been challenged by the centers, and draw up what could be close to a final draft for the NCAB Centers Committee meeting April 30. Director Samuel Broder will discuss the plan with center directors when he meets with them May 23 in Washington, during the ASCO meeting. It will then go to the Assn. of American Cancer Institutes at their meeting in Minnesota June 20, and finally to the NCAB in September.

Development of a five year plan for centers was one of the recommendations of the Institute of Medicine when it presented its report on cancer centers to Congress last year. That report had been requested by

The Owens draft reduced the plan from 54 pages in the first draft to eight. It follows, with revisions by the committee:

Goals

The purposes of the five year plan include:

1. Strengthening cancer centers to exploit emerging scientific opportunities leading to improved cancer

THE CANCER LETTER

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PO Box 15189, Washington, DC 20003 Tel: (202) 543-7665 Fax: (202) 543-6879

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- 2. Identification of resources necessary to address scientific objectives.
- 3. Strengthening the organization and management of the cancer centers program to enhance discovery, education, communication, and liaison with other agencies concerned with various aspects of the cancer problem.

Environmental Assessment

- 1. Over the past decade, cell and molecular biologic research has provided insights into fundamental life processes and the nature of human tumorigenesis that are "spectacular" or "revolutionary" in proportion. There is every reason to believe that this line of research can continue to be very productive.
- 2. Fundamental discoveries point the way to more effective means of cancer prevention, diagnosis, and treatment. There is every reason to anticipate that our understanding of neoplastic diseases and our methods of managing them will undergo remarkable revisions before the turn of the century.
- 3. During recent years cancer centers have played a vital role in advancing programs of cancer research and treatment, especially those focused on human disease.
- a. Organized cancer programs exist at many universities not previously involved in a major way.
- b. Half the peer funded cancer research is conducted in institutions with peer acknowledged cancer centers.
- c. Half of the trainees preparing for careers in cancer research are enrolled in peer funded programs at institutions with cancer centers.
- 4. Cancer center support grants have successfully sustained productive interdisciplinary programs in cancer research by providing funds for scientific leadership. shared research resources. investigators, and new investigator/program development, etc. In most instances, this same center leadership is also responsible for organized programs in cancer education, patient management, cancer prevention, community networking, etc.
- 5. During recent years, the federal funding of cancer research has been severely constrained. Despite the ambitious goals of the National Cancer Act of 1971, the National Cancer Institute has received the least increment in its annual funding of all the institutes at NIH. Similarly the funds for cancer center support grants have remained essentially level for the past four years.
- 6. Currently over three quarters of peer approved NCI research grants go unfunded and those receiving

support are arbitrarily cut by about 20 percent. Similarly, over the past three years, the number of peer approved CCSGs which could be funded has declined from 61 to 57, and those receiving support have been arbitrarily cut by about 15 percent. Since 1978-79, the number of peer reviewed core grants has declined from 74 to 57, and five more will go into phase out this year. If all core grants were funded at 100 percent of their recommended levels, NCI could support only 46 or 47 centers.

- 7. There has been a consistently expressed public interest in their having easy access to "the latest in health care," especially cancer care. "Cancer control" is something that has been consistently referred to as desirable by members of Congress. NCI designated centers address these needs.
- 8. On the other hand, there is a growing public preoccupation with "the high cost of health care." This cost is estimated to be 11 percent of our gross national product or about \$660 billion a year. Our country's health care costs have been judged "the highest in the world." (Owens will add the estimated cost of cancer care, including economic costs and relative cost).
- 9. Health insurers are placing increasing constraints on payments for health care services. Of note with regard to the National Cancer Program is the growing tendency to refuse payment for "experimental therapy." Refusal to recognize experimental therapy as the best therapy available denies patients access to health care and impedes trials that lead to improved treatments. Refusal to reimburse for off label uses of drugs are a serious impediment to improved treatment and it impedes access to state of the art cancer care.
- 10. There is also a growing public perception that the "war against cancer is being lost." The clear suggestion is that cancer morbidity and mortality are unalterable inevitabilities. These perceptions are unjustified. Cancer centers can play a leading role in communicating the facts to the public.
- 11. This country ranks seventh in the world with regard to supporting biomedical research, as a proportion of gross national product. At X billion dollars (Owens will find the estimated figure) per year, the U.S. ranks behind Japan, West Germany, France, and others.

The Values of Centers

- 1. Collectively, the cancer centers are a highly valuable national resource. They have been very productive in the past and there is every reason to believe that they can play a key role in the years ahead.
 - 2. The National Cancer Program is strengthened by

the diversity amongst the cancer centers. Centers have been categorized as comprehensive, clinical, and basic science centers because of the varying degree to which each one pursues fundamental research, clinical investigation, education, treatment and prevention programs, cancer control, community outreach, etc.

- 3. The National Cancer Program is also strengthened by the fact that cancer centers maintain a broad scientific perspective; they eschew narrowness.
- 4. Science is central to the workings of successful cancer centers. The attitude of discovery, inquiry, and innovation pervades the environment of our best centers as well as the continual search for excellence.
- 5. Cancer centers are a highly valued educational resource, especially for physicians and scientists preparing for careers in oncology.
- 6. Many cancer centers are pursuing interdisciplinary programs in cancer research, prevention, and treatment. In the process of generating important new knowledge and educating young professionals, cancer centers also elevate the standards of clinical care to the highest level possible in the regions they serve.
- 7. It is useful to note that cancer centers are not intended to be chronic disease hospitals, state or county health departments, regional health planning agencies, etc. However, cancer centers can assist these agencies in their regions by providing scientific leadership, patient care resources, educational resources, technical know how, etc.
- 8. Cancer centers serve as effective focal points for the dissemination of scientific information and diffusion of technologic advances. This is accomplished by various means, some of which are responsive to unique local needs.
- 9. In order to serve effectively as a national resource, means need to be provided to enhance a sensible kind of communication and cooperation amongst cancer centers but not to the detriment of the diversity of scientific strengths and opportunities which exist locally. Uniformity of program throughout centers is not valued. Further, there is good reason to encourage a sensible geographic distribution of cancer centers, but not to the detriment of peer determined scientific and professional excellence.

Objectives for Current Planning

1. There is a clear consensus that the Cancer Centers Program planning process involves a large and diverse group of individuals who are knowledgeable and experienced in the field and that the plan not be "centrally determined" (at NCI).

- 2. There is a further clear consensus that discovery and scientific program leadership remain central to the Cancer Centers Program and that it not be diluted out or go unsupported because of competing new initiatives.
- 3. More leadership is desirable in the area of the application of new knowledge and new technologies. How are the fruits of research best put into human service?
- 4. More leadership is also desirable in the area of developing public health strategies for more effective cancer control and prevention. How can cancer morbidity and mortality be reduced most effectively, especially in the underserved and minorities?
- 5. There is a fast approaching crisis in scientific and physician resources in oncology. Cancer centers are in an excellent position to recruit and train the individuals necessary to continued progress.
- 6. There is a pervasive feeling that seeking sensible means of increasing communication and collaboration amongst cancer centers, including NCI, is worthwhile.

Strategies, Program Priorities, and Resources Required

- 1. The vital role of cancer centers in furthering the goals of the National Cancer Program by enhancing basic research, treatment and prevention research, cancer control research, educational resources, and community outreach activities is reaffirmed. Therefore, it is most important that the Cancer Centers Program be strengthened.
- 2. Investigator initiated research is the prime source of discovery. RFAs can call attention to neglected areas of research or to promising scientific opportunities.
- It is highly desirable that full funding be provided for 50 percent of approved research grant applications. This would require a total of \$1.9 billion in FY 1991; \$557 million more than is requested in the President's budget.
- 3. It is desirable that added emphasis be placed on research into new means of cancer prevention, detection, cancer control, and nutrition. Public health service demonstrations are carried out more effectively when coordinated by cancer centers in collaboration with other agencies. Further, it is highly desirable that the scientific perspective of cancer prevention and control research be broadened to encourage the involvement of cell and molecular biologists, geneticists, and pharmacologists in this promising area of research.

This expanded program would require a total of \$162 million in FY 1991; \$83 million more than is requested in the President's budget.

4. The education of increased numbers of scientists,

especially physicians preparing for careers in oncology, is a matter of urgent concern. Training of half of the applicant graduate and postdoctoral trainees would require a total of \$66.5 million; \$20.6 million more than is requested in the President's FY 1991 budget.

This expanded educational program would also prepare individuals for the areas of oncology, e.g., careers in cancer prevention and control research, nutrition, etc.

- 5. In order to enhance the productivity of cancer centers in support of the programs mentioned above and in order to enhance the process of translating scientific discovery into human service, it is highly desirable that additional funds be provided for cancer center support grants. A total budget of \$145 million for FY 1991 (\$43 million more than is requested in the President's budget) would enable full funding of peer approved cancer center support grants and the addition of three or four centers to the program.
- 6. Recent surveys have made plain the pressing need for modern equipment and facilities to support the National Cancer Program. \$60.7 million is recommended for FY 1991. No funds for this purpose are requested in the President's budget.
- 7. In brief, the level of funding for NCI envision in the bypass budget (\$2.4 billion) is needed to regain some of the ground lost since the passage of the National Cancer Act of 1971, and to realize the many scientific opportunities which lie immediately ahead.
- 8. Establishing mechanisms to encourage collaborative actions amongst cancer centers is desirable. Money (amount to be determined) is required to support planning conferences, workshops, and other activities.
- 9. Establishing mechanisms to encourage collaborative activities between cancer centers and other institutions and agencies in their geographic areas which are concerned with the cancer problem would be very beneficial (amount to be determined).
- 10. It is urgent that a means be found to suitably modify the refusal of health care insurers to reimburse for patients on clinical trials so that progress in clinical research can be maintained.

Administration and Organization of the Cancer Centers Program

- 1. It is important to its mission that regular representation of the national cancer centers program occur at the highest levels of NCI planning and decision making.
- 2. It is important there be ongoing involvement of cancer center directors or their designees with the NCI staff directing the planning and implementation of

programs of concern to cancer centers.

3. It is important that the cancer centers program of NCI maintain sufficient management capabilities to plan, implement, monitor, and evaluate the progress of the program.

4. It is important that the cancer centers program staff, in its day to day work, encourage diversity and innovation amongst cancer centers as they pursue their research and educational goals and their community networking objectives, rather than enhancing regression toward programmatic uniformity throughout all centers.

At the request of NCI staff members, who need to be concerned about possible charges of "budget busting" by HHS or OMB, the committee agreed that the document should emphasize at the start that these recommendations follow those of the bypass budget, authority for which is mandated in the National Cancer Act.

Panel Recommends 5-FU/Levamisole For Adjuvant Stage 3 Colon Cancer

The NIH Consensus Conference on the Adjuvant Therapy of Colon and Rectal Cancer made one clear cut recommendation (5-FU and levamisole for stage 3 [Dukes C] colon cancer); another not quite so strong or definite for rectal cancer (chemotherapy plus radiotherapy); some modest suggestions on who is at high risk for recurrence; and offered some interesting suggestions for future research.

The conference panel, chaired by Glenn Steele, chairman of surgery at New England Deaconess Hospital, was highly impressed by the North Central Cancer Treatment Group and the following intergroup studies of 5-FU and levamisole in the adjuvant therapy of stage 3 patients.

"These studies are the most compelling investigations demonstrating a statistically significant improvement in disease free survival and overall survival in the adjuvant setting for stage 3 patients," the panel's draft consensus statement said. "Longer followup will hopefully strengthen the conclusion that adjuvant 5-FU/levamisole for stage 3 patients should be the control arm for ongoing clinical trials and should be offered to similarly staged patients off trial unless medical or psychosocial contraindications exist.

"If subsequent analysis of 5-FU/levamisole demonstrates significant benefit for stage 2 (Dukes B) patients, identical recommendations for trial/nontrial patients would pertain. However, the high survival rates observed in node negative patients without

adjuvant therapy would require a close examination of risk and benefit if this subset of patients were to be treated outside of clinical trials."

The draft recommendation for adjuvant therapy of rectal cancer, citing several studies in which various chemotherapy regimens were used with and without radiation therapy, said:

"Overall, these results are strongly suggestive that the best current adjuvant therapy for rectal cancer involves both chemotherapy and radiotherapy. However, the absolute necessity for radiotherapy for survival benefit is by no means convincingly demonstrated at this time, and we must await the completion of current trials for clarification of this issue. Likewise, the presence of methyl-CCNU in most the successful chemotherapy regimens problematic in view of its demonstrated leukemogenesis and nephrotoxicity. . . Research should be directed toward finding effective drug combinations that do not use this agent."

On who is at high risk for recurrence, the draft statement said this should include node positive patients (stage 3); stage 2 patients with certain anatomic or biologic features involving TNM and CEA status, aneuploid DNA content, and poorly differentiated histology, among others; and correlation of laboratory and clinical data is needed to define the significance of cellular and molecular characteristics. Stage 1 lesions do not require adjuvant treatment.

The following directions for future research were suggested:

▶The highest priority for future adjuvant trials in colon cancer should build on the results achieved with 5-FU/levamisole using modulators of 5-FU, modulators of host response, and new regimens of proven efficacy in advanced disease.

▶Highest priority for future adjuvant trials in rectal cancer will be to integrate radiation therapy with newer 5-FU modulated regimens such as 5-FU/levamisole, 5-FU/leucovorin, or other combinations with demonstrated activity in advanced disease.

There is a need to identify new determinants of risk to be used to select low and intermediate risk patients likely to benefit from adjuvant therapy.

There is a need to incorporate into intergroup trials the appropriate basic laboratory investigations required to define mechanisms of drug action, especially in trials involving modulators of host immune response.

▶There is a need to address issues of quality of life and the cost benefit of such therapies.

▶There is a need to initiate trials to address questions of differences in disease and outcome

observed in various ethnic and socioeconomically disadvantaged groups.

Cancer Researchers Ask Congress To Fully Fund NCI Bypass Budget

Several prominent cancer researchers urged Congress last week to fully fund NCI's FY 1991 bypass budget in order to avoid cutbacks in grants and cancer centers, and to expand prevention research and clinical trials.

The researchers and representatives of professional organizations told the House Labor, HHS, Education Appropriations Subcommittee that the President's budget is inadequate in light of the major research opportunities available now as a result of significant progress in cancer research since the beginning of the National Cancer Program. The subcommittee is chaired by Rep. William Natcher (D-KY).

The bypass budget, a professional needs budget NCI submits directly to the President, would provide \$2.4 billion in FY 1991. That amount is \$716 million more than the President's proposed \$1.6 billion budget for NCI.

Those testifying were John Ultmann, past chairman of the National Coalition for Cancer Research; Sonja Eva Singletary, assistant professor of surgery at M.D. Anderson Cancer Center; Maureen Henderson, head of the cancer prevention program at Fred Hutchinson Cancer Research Center; Sydney Salmon, director of the Univ. of Arizona Cancer Center and president of the Assn. of American Cancer Institutes; Karen Antman, Dana-Farber Cancer Institute, representing the American Society of Clinical Oncology; Cyril Schulman, George Washington Univ. School of Medicine representing the American Cancer Society; and Richard O'Reilly, Memorial Sloan-Kettering Cancer Center, representing the American Assn. for Cancer Research.

Rep. John Myers (R-IN), a member of the full House Appopriations Committee but not a subcommittee member, questioned the researchers about qualifications for radiologists who read mammograms. He attended a previous subcommittee hearing on the NCI budget (The Cancer Letter, March 23) and expressed the same concern.

A staff member for Myers said the congressman's interest in cancer is "purely personal," because his wife was diagnosed with breast cancer recently. At the hearing, Myers indicated that his wife's mammograms were misread several times before the cancer was finally detected.

NCI Advisory Group, Other Cancer Meetings For May, June, Future

Envisioning the Future: Oncology Social Work in the 1990s-May 2-5, St. Petersburg Beach, FL. TradeWinds Hotel. Sponsored by National Assoc. of Oncology Social Workers. Contact Nancy Elkins, H. Lee Moffitt Cancer Center, PO Box 280179, Tampa, FL 33682, phone 813/972-8483.

Early Cancer Detection & Prevention--May 3, Buffalo, NY. Contact Roswell Park Cancer Institute, 716/845-2339.

National Conference on Cancer and the Changing Healthcare System--May 3-5, San Francisco, CA. Sponsored by American Cancer Society. Contact ACS, 1599 Clifton Rd. NE, Atlanta, GA 30329, phone 404/329-7604.

Entrepreneurship & Innovation for Physicians--May 3-5, San Francisco, CA. Contact Center for Competition in Healthcare, Carol Bomar, phone 1-800-752-0926.

European Federation of Societies for Ultrasound--May 6-11, Jerusalem, Israel. Contact Kenes Ltd., PO Box 50006, Tel Aviv 61500, Israel.

Chest Tumors Course--May 7-11, Milan, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

Overcoming Cancer Drug Resistance--May 10-11, Tokyo, Japan. 13th Bristol-Myers Squibb Symposium on Cancer Research. Contact Virginia Mintz, 202/835-8852, or Liza Fields, 202/835-8829.

Clinical Pharmacology in Space--May 10-11, Houston, TX. Contact American College of Clinical Pharmacology, 175 Strafford Ave. Suite 1, Wayne, PA 19087.

Molecular Genetics of Development--May 10-12, Arlie, VA. Contact Jack Harvey, Social & Scientific Systems, 7101 Wisconsin Ave. Suite 610, Bethesda, MD 20814, phone 301/986-4886.

Small Cell Lung Cancer--May 11-12, Ravenna, Italy. Contact Augustrera S.R.L., via Di Roma 86, 48100 Ravenna, Italy.

American Roentgen Ray Society--May 13-18, Washington, Sheraton Washington Hotel. Contact American College of Radiology, 1891 Preston White Dr., Reston, VA 22091, phone 648-8912.

American Society for Clinical Microbiology--May 13-18, Anaheim, CA. Contact ASCM, 1913 I St. NW, Washington, DC 20006, phone 202/833-9680.

National Cancer Advisory Board--May 14-15, NiH Bldg. 31 Rm 10. Open May 14 from 8 a.m.-adjournment. Open May 15 from 1 p.m.-adjournment.

NCAB Committee on AIDS--May 14, NIH Bldg. 31 Rm 7 immediately following NCAB meeting.

NCAB Committee on Cancer Centers--May 14, NIH Bldg. 31 Rm 8 immedately following NCAB meeting.

NCAB Committee on Planning & Budget--May 14, NIH Bldg. 31 Rm 8, 6 p.m.

NCAB Committee on Information & Cancer Control--May 15, NIH Bldg. 31 Rm 7, 7 a.m.

The 1990 NDA Pipeline Conference--May 14-15, Washington, Omni Shoreham Hotel. Contact International Business Communications, 508/650-4700.

Topics in Clinical Medicine--May 14-18, Johns Hopkins Medical Institutions, Baltimore, MD. Contact Office of Continuing Education, Turner Bldg, 720 Rutland Ave., Baltimore, MD 21205, phone 301/955-2959.

Oncology Nursing Society--May 16-19, Washington, D.C. Contact ONS, 1016 Greentree Rd, Pittsburgh, PA 15220-3125, phone 412/921-7373.

NCI Div. of Cancer Prevention & Control Board of Scientific Counselors--May 16-17, Bethesda Marriott Hotel, Grand Ballroom, Bethesda, MD. Open May 16 from 8:30 a.m.-3 p.m. and May 17

8:30 a.m. to adjournment.

Current Concepts in Radiation Therapy--May 16-18, Minneapolis, MN. Contact Dr. Seymour Levitt, Course Chairman, Office of Continuing Medical Education, Univ. of Minnesota, Box 202 UHMC, 420 Delaware St. SE, Minneapolis 55455, phone 612/626-5525.

Cancer Prevention & Control & American Minorities: American Society of Clinical Oncology Committee on Canter Prevention & Control--May 18, Washington, Ramada Renaissance Techworld Hotel. Contact ASCO, 435 N. Michigan Ave. Suite 1717, Chicago, IL 60611, phone 312/644-0828.

American Society of Clinical Oncology 26th Annual Meeting-May 20-22, Washington. Contact ASCO, 435 North Michigan Ave, Suite 1717, Chicago, IL 60611, phone 312/644-0828.

World Conference on Lung Health--May 20-24, Boston, MA. Contact Richard Grimes, American Lung Assn., 1740 Broadway, New York, NY 10091-4374, phone 212/315-8700.

AACR Special Conference In Cancer Research: Molecular Basis Of Tumor Immunology--May 20-22, Reston, VA, Sheraton Hotel. Contact AACR, Public Ledger Bldg. Suite 816, 8th & Chestnut Sts., Philadelphia, PA, phone 215/440-9300.

81st Annual Meeting American Assn. for Cancer Research-May 23-26, Washington, D.C. Contact AACR, Public Ledger Bldg. Suite 816, 8th & Chestnut Sts., Philadelphia, PA, phone 215/440-9300.

Cytokines and Cell Motility--May 24, New York City. Sponsored by Long Island Jewish Medical Center and NCI. Contact Ann Boehme, Assoc. Director for Continuing Education, 718/470-8650.

International Workshop on Californium-252 Neutron Therapy: Brachy & Boron Neutron Capture Therapy--May 25-27, Lexington, KY, Lexington Griffin Gate Marriott. Contact Terry Stuart, Radiation Therapy Oncology Center, Univ. of Kentucky Medical Center, Lexington, KY 40536-0084, phone 606/233-6489.

International Assoc. for Breast Cancer Research Biennial Meeting.-May 27-29, 1991, Saint-Vincent, Italy. Contact Secretariat of the Meeting, Centro Congressi Grand Hotel Billia, 11027 Saint-Vincent, Aosta Valley, Italy, phone 0166/2011, fax 0166/201449.

MRI & Spectroscopy in Oncology.-May 29-30, Venice, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

Advances in MRI Imaging--May 31-June 2, Scottsdale, AZ, Marriott Camelback Inn. Contact Siemens Medical Systems Inc., 1-800-272-3837.

Assn. for Practitioners in Infection Control Annual Conference-June 3-7, Washington Hilton, Washington, D.C. Contact APIC, 505 E. Hawley St. Mundelein, IL 60060, phone 708/949-6052).

Radiation Physics for Clinical Radiotherapy--June 3-8, Leuven, Belgium. Contact ESTRO Secretariat, Dept. Radiotherapy, VH St. Rafael Capucijnenvoer 35, 3000 Leuven Belgium.

NCI Div. of Cancer Treatment Board of Scientific Counselors-June 4-5, NIH Blg 31 Rm 6. Open 8:30 a.m. June 4, 9 a.m. June

Critical Issues in Tumor Microcirculation, Angiogenesis & Metastasis--June 4-8, Pittsburgh, PA, Carnegie Mellon Univ. Contact Hilda Diamond, Associate Director, Biomedical Engineering Program, Carnegie Mellon Univ., Pittsburgh, PA 15213-3890, phone 412/268-2521.

Interleukins Seminar--June 5-6, Venice, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

National Tumor Registrars Assn. Annual Meeting.--June 5-9, San Antonio, TX, Hyatt Regency Riverwalk. Contact NTRA, 505 E. Hawley St., Mundelein, IL 60060, phone 708/566-0833.

International Lymphoma Conference--June 6-9, Lugano, Switzerland. Contact Olga Jackson, Via Quiete 13, 6900 Lugano, Switzerland.

International Congress on Breast Diseases--June 10-14, Boston. Hynes Convention Center. Contact Secretariat, c/o Office of Continuing Education, Tufts Univ. School of Medicine, 136 Harrison Ave. Box 36, Boston, MA 02111, phone 617/956-5657.

New Trends in Human B Cell Neoplasia--June 11-14, Paris, France. Contact Eruopean School of Haematology, Centre Hayem, 1, avenue Claude Vellefaux, 75475 Paris Cedex 10, France.

Radiotherapy 2000: Research Strategies for the Next Decade-June 11-15, Cadro/TI, Switzerland. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

Molecular Basis of Human Cancer--June 13-16, Frederick, MD. Contact Margaret Fanning, Conference Coordinator, FACS, PO Box 249, Libertytown, MD 21762, phone 301/898-9266.

European Assn. of Urology Congress--June 13-16, Amsterdam, The Netherlands. Contact IMEDEX USA Inc., 5815 Wills Orchard Rd., Cumming, GA 30130, phone 404/751-7332.

NIH Consensus Conference: Treatment of Early Stage Breast Cancer--June 18-21, NIH Masur Auditorium. Contact Prospect Associates, 301/468-MEET.

Acrylonitrile Study Advisory Panel--June 20, Rockville, MD. Executive Plaza North Conference Rm 8, 10:30, open.

International Conference on Reach To Recovery--June 20-22, Dublin, Ireland. Sponsored by Irish Cancer Society. Contact Avril Gillatt, Reach To Recovery, PO Box 2484, Dublin 4, Ireland.

4th Drug Delivery Systems Symposium & 6th ISGIID Meeting-June 20-23, Nice, France. Contact Secretariat Cardiostim 90, Departement de Stimulation Cardiaque, Centre Chirurgical Val D'Or, 16, rue Pasteur 92211 St. Cloud Cedex, France, phone (1)46.02.70.72.

Breast Reconstruction Seminar--June 21-23, Venice, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

Cancer Management Course--June 22-23, Reno, NV. Contact Dr. Edwin Savlov, American College of Surgeons, Cancer Dept., 55 E. Erie St., Chicago, IL 60611, phone 312/664-4050.

Complications of Treatment of Children and Adolescents for Cancer--June 22-24, Buffalo, NY. Contact Daniel Green, Dept. of Pediatrics, Roswell Park Cancer Institute, Elm & Carlton Sts., Buffalo, NY 14263, phone 716/845-2333.

Candlelighters Childhood Cancer Foundation 20th Anniversary Conference--July 22-25, Sheraton Washington, Washington, D.C. Contact Candlelighters Childhood Cancer Foundation, PO Box 15263, Washington, D.C. 20003.

Annual Meeting on Oncogenes--June 26-30, Frederick, MD. Contact Margaret Fanning, Conference Coordinator, FACS, PO Box 249, Libertytown, MD 21762, phone 301/898-9266.

Pain Treatment in Oncology-June 26-27, Venice, Italy. Contact European School of Oncology, Via Venezian 1, 20133 Milan, Italy.

Recent Advances in Urological Cancer Diagnosis & Treatment-June 27-29, Paris, France. Contact Dr. Saad Khoury, Clinique Urologique, Hopital de la Pitie, 83, Bd. de L'Hopital, 75634 Paris Cedex 13, France, phone 45.70.38.62, fax 45.70.30.78.

FUTURE MEETINGS

Human Papillomavirus & Genital Carcinoma--Sept. 16-19, Chicago, IL. Sponsored by Rush Medical College and Sinai Hospital of Detroit. Contact Deene Alongi, 401 N. Michigan Ave., Suite 2100, Chicago, IL, phone 312/644-6610.

Harvard Medical School Urologic Cancer Course--Oct. 1-3, Boston, MA, Four Seasons Hotel. Contact Harvard Medical School, Dept. of Continuing Education, Boston, MA 02115, phone 617/432-1526.

Assn. of Community Cancer Centers Fall Leadership Conference--Oct. 11-13, Las Vegas, NV. Contact ACCC, 11600 Nebel St., Suite 201, Rockville, MD 20852, phone 301/984-9496.

Tokyo Symposium on Prostate Cancer--Dec. 14-15, Tokyo, Japan. Contact James Karr, Roswell Park Memorial Institute, 666 Elm St., Buffalo, NY 14263, phone 716/845-2389.

Biotherapy of Cancer: Symposium for Clinicians and Nurses—Feb. 7-9, 1991, Newport Beach, CA. Sponsored by Hoag Cancer Center. Contact Nomi Feldman, 619/453-6222.

RFAs Available

RFA OD-90-02

Title: Clarification: Construction of a mouse production facility

NIH has issued this notice for clarification concerning the requirements for matching funds to be provided by the grantee. The following section replaces that in the original full RFA document (The Cancer Letter, March 2).

Funding Participation: This one time solicitation based on the FY 1990 appropriation will make available \$10 million for this initiative. Final amount to be determined based on the peer review evaluation. Up to 75 percent of the allowable costs of the project may be provided, not to exceed \$10 million. The matching contributions by the institution may be in cash or in kind, fairly evaluated, including plant and equipment or services throughout the 20 year period of the grant (and including such specialized strains of mice as the Secretary may request for purposed of biomedical research). Amounts provided by any agency of the federal government other than the Dept. of Health and Human Services, and services assisted or subsidized by any such agency, may be included in amount of such matching funds. Prior to the grant award, the applicant must provide an assurance of required institutional contributions, as described above, and that other contributions have been secured to meet any projected costs in excess of the award amount. Requests of less than \$500,000 will not be accepted. No indirect costs will be awarded. No continuation costs will be awarded.

No other parts of the RFA are modified.

Program Announcement

Underlying molecular, cellular and immunological factors in agerelated cancers.

The purpose of this program announcement is to stimulate investigator initiated research that will lead to a better understanding of the various underlying factors, both intrinsic (genetic, molecular and cellular) and extrinsic (epigenetic, immunological, drug-induced, chemical and viral) that affect behavior of cancers in older patients (over 65) versus younger patients. It is not known why incidence and morality rates for certain cancers are greatly increased in older patients when compared with younger patients.

Current statistics show significant increases in cancer incidence and mortality rates in certain age related cancers such as carcinomas of the colon, prostate, breast and ovary. This was based on the review of cancer incidence, survival and mortality statistics from the SEER Data Base which indicated differences between cancer patients over 65 and those under 65 in these cancers. Persons over 65 comprise 12 percent of the population. This fraction will increase to 14 percent by the year 2000.

Understanding the higher mortality rates in older cancer patients may depend on understanding the possible roles played by the physiological changes with age, the patho-physiology of age-related diseases, and the interactions of many medications consumed by older persons. Using animal models, gerontologists reported that genetic instability developed during aging proved damaging to the normal controls of cell growth. Although expression of proto-oncogenes and responses to growth factors decrease in senescent cells, certain elements, e.g., c-myc, exhibit

an age dependent increased expression to an abnormally high level in some tissues (intestine, kidney, liver and spleen) in aging animals. Analogous molecular alterations have been reported in tumor progression of certain cancers.

However, there is not enough information to permit an unbiased evaluation of any correlation between molecular alterations with specific tumor stages, and no comparative study has been done on the molecular and cellular alterations related to senescence with the same events in tumors of the aging patients. For example, it is not known if cellular growth rate, which generally decreases with aging, bears any relationship to the malignant phenotype of a tumor. Moreover, although there are many speculations on relationships of growth rates, invasiveness, and metastatic properties of the tumor to host age, few well controlled studies in either animal models or patients have been done which relate those processes to host age.

The interaction of the immune system with tumors in elderly patients is also not well understood. Although it has generally been assumed that immune competence decreases with age, the relationships between specific immune deficiencies and tumor growth and progression have yet to be fully analyzed. Older patients pose complex problems for therapy in view of the many physiological changes and chronic illnesses associated with aging. Furthermore, phenotypic expressions of the multi-drug resistance genes, drug metabolizing enzymes and membrane transport properties of tumor cells in elderly cancer patients are not well understood. The development of drug resistance in cancer cells of elderly patients during the course of treatment would constitute a severe problem in chemotherapy.

The overall thrust of this program announcement is to stimulate and encourage a broad spectrum of research to develop basic information relevant to the intrinsic and extrinsic factors contributing to age related cancers. Collaborations among oncologists, moiecular biologists, immunologists gerontologists are greatly encouraged. Innovative and imaginative research proposals are needed to generate and integrate information at the molecular genetic, cellular immunological and clinical levels. The development of new information on the age related differences between cancer patients over and under 65 regarding the phenotypic and genotypic properties of tumor cells (such as expression of oncogenes, suppressor genes, growth factors and their receptors) and tumor-host interactions, may contribute to improvements in cancer prevention, diagnosis and

The Div. of Cancer Biology, Diagnosis & Centers Cooperative Human Tissue Network, supported by NCI, provides cancer researchers and potential applicants of this announcement access to human tissues for research. Provision has been made for collection of tumors from the young patients with tumors that usually occur in elderly patients. It is the responsibility of the applicant to ensure that there is adequate availability of materials necessary for the proposed research.

This program will be supported through traditional research grants such as RO1, PO1, and the First Award. Non profit and for profit domestic organizations and institutions, governments and their agencies are eligible to apply.

Applications may be submitted for a period of five years and will be eligible for competitive renewal. Applications will be accepted in accordance with the published dates for receipt of new applications: June 1, October 1 and February 1.

Those intending to submit an application to this program announcement may contact: Dr. Stringner Sue Yang, Div. of Cancer Biology, Diagnosis & Centers, NCI, Executive Plaza North Rm 308, 6130 Executive Blvd., Rockville, MD 20892, phone 301/496-8531.