

THE **CANCER** LETTER

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Senate Markup Of Labor-HHS-Education Money Bill Delayed Until After Congress August Recess

If NCI is to receive any budgetary relief in fiscal 1990, it will be up to the Senate Appropriations Committee, which will not prepare its version of the NIH budget until September, after the August recess of Congress. The spending plan approved by the House Appropriations Committee last week would provide NCI \$1.65 billion, only a \$6.59 million increase
(Continued to page 2)

In Brief

Minority Based CCOP Workshop Planned; NCI Changes To 800-4-CANCER On Levamisole

NCI'S MINORITY Based Community Clinical Oncology Program will be the subject of a workshop Aug. 25, 9 a.m.-4 p.m., NIH Building 1 Wilson Hall. Those considering submitting applications for Minority Based CCOP awards are encouraged to attend. The program will include presentations on the current CCOPs, clarification of issues pertaining to the RFA (The Cancer Letter, June 9), and aspects of grants management and review related to the program. Advance registration is requested; phone Karen Grotzinger or Anne Middleswarth at 301/496-8541. . . . ROSEMARIE CLIVE has been appointed executive director of the Cancer Institute of the Washington (DC) Hospital Center. Clive has been vice president of ELM Services. Paul Sugarbaker is medical director of the institute, a \$16 million freestanding cancer center scheduled to open in the spring of 1991. . . . CORRECTIONS: The comment attributed to William Benedict, member of the Div. of Cancer Etiology Board of Scientific Counselors, that difficulties in recruiting scientists to replace key people is "at the point where NCI is not viable" (The Cancer Letter, July 21), was incorrect, Benedict says. "My comment was that the future viability of NCI is threatened, not that it is not viable now." Also in the July 21 issue: NCI has decided that it will not encourage patients to call the Drug Management & Authorization Section for information on levamisole after all. That number (301/496-5725) is the one for physicians to call regarding group C drugs, of which levamisole is one. Patients and their family members are encouraged to phone 800-4-CANCER, the nationwide Cancer Information Service number which is staffed specifically to respond to questions from the public. . . . VICTOR BRAREN, Vanderbilt Univ. pediatric urology professor and former member of the National Cancer Advisory Board, has been appointed to the National Institute of Diabetes & Digestive & Kidney Diseases Advisory Council.

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House, Senate
Committees Increase
FDA Funding, Drop
User Fees
... Page 4

Swedish Study Finds
Long Term Hormonal
Therapy May Increase
Breast Cancer Risk
... Page 5

ACOS Planning
Patient Care
Melanoma Study
... Page 5

Home Test Detects
Hematuria Earlier
... Page 6

Allegations Reflect
Misunderstanding,
Pan Data Says
... Page 7

DeVita Heads U.S.
Board Of CCCR
... Page 7

House Bill's \$6.5 Mil. NCI Increase Could Drop Under Gramm-Rudman

(Continued from page 1)

over the President's budget request, and an \$81.7 million increase over the FY 1989 budget. (That amount does include AIDS funding, contrary to the report in *The Cancer Letter* last week.)

Asked what might be done with the additional funding, NCI Director Samuel Broder said he cannot comment on Congressional budget appropriations.

However, he did tell *The Cancer Letter* that, "One concern I have is, whatever budget may be approved, sooner or later there may be a Gramm-Rudman deficit reduction. The whole issue of Gramm-Rudman, and budget reductions is a situation we must learn to live with."

There is reason to be concerned. In fiscal 1989, NCI received about \$20 million less than the President's budget and less than Congress originally appropriated. Reductions were taken through Gramm-Rudman, payments for AZT for AIDS patients and management "reform" measures instituted by the Office of Management & Budget.

NIH overall fared slightly better in the House bill. The bill provides \$7.67 billion for NIH, \$149 million above the President's request and \$534 million over the 1989 level.

The committee handled AIDS funding differently than in previous years. The committee rejected the President's proposal to consolidate AIDS funding within the office of the assistant secretary for health, but it did not specify AIDS funding by institute.

The committee explained that the level of AIDS research "has now reached the point where AIDS research should be managed by NIH using the same system as it uses for

other critical illnesses such as diabetes and Alzheimer's disease," according to the report accompanying the bill. The precise amount spent on these types of research "is determined by the institute based on the quality of applications submitted and competing research priorities."

The committee estimated that the PHS AIDS expenditures will total \$1.6 billion, the same amount proposed by the President and a 24 percent increase over FY89 expenditures.

The House committee's report included a section describing the work it expects NCI to continue and to expand. It provides a picture of how the committee views the institute. Following is the section of the report in full:

Basic research--The institute's highest priority is the support of basic research. Basic research discoveries in cancer biology, etiology and treatment continue to be applied to improve diagnosis and early cancer detection techniques, to improve treatment regimens for a variety of specific cancers, and to obtain valuable information related to the prevention and control of cancer. Basic science studies of rare tumors, such as retinoblastoma which affects about 1,000 children a year in the U.S., often have profound implications for more common tumors, such as lung cancer, breast cancer, or colon cancer, which affect several hundred thousand people per year.

Cancer progress: Good news and bad news--

The statistics regarding cancer incidence, survival and mortality are of great concern because of the increasing number of cases and deaths from cancer. Progress is being made in several major cancers, especially for those Americans under the age of 65. Since 1973, a reduction in the annual death rate has occurred in several major cancer types due to a combination of prevention, early detection and treatment. However, the news is not as encouraging for those over the age of 65. NCI should expand its activities to ascertain the cause of the disparity in cancer rates by age and take steps to correct this problem.

Disparity in cancer rates between certain minorities and the general population is widening. Part of this growing gap could result from the inability of medically underserved populations to receive the most up to date diagnosis and treatment. It is important that the causes of these disparities be defined and that NCI do whatever it can to reverse this trend. NCI has new program initiatives such as

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the Black Leadership Initiative which will assist the education of minority groups relative to their risk of cancer and what they can do to reduce that risk. Six regional coordinators will be appointed by NCI to work with minority communities across the U.S. to effect this initiative. Efforts are also underway to increase minority use of the Cancer Information Service, a toll free network of cancer information available to the American public. Where possible, support for additional and accelerated activities aimed at improving cancer statistics in minorities and the economically disadvantaged, including the rural poor is encouraged.

Prevention and control-- Much of NCI's prevention research is effected through the Cancer Prevention & Control Program. A major NCI initiative utilized prevention clinical trials and basic research in nutrition to uncover the best means of reducing cancer risk through dietary modification. This is complemented by an effort to develop a nutrition and cancer research laboratory. Projects are underway to promote cancer prevention awareness, to work with state health agencies in prevention and control, to improve access to state of the art cancer diagnosis and care, and to disseminate breast cancer information, cancer detection guidelines, patient education and information for minority groups.

Early detection and diagnosis-- The investment in basic research in cancer biology has brought about improvements in early detection and diagnosis. It is known that we must treat cancer when it is microscopic, before it spreads. New and sensitive tests can identify tumors and assess the state of cancer development and the risk of metastasis. New tests to identify bladder and lung cancers at early and more treatable stages have been developed. These initiatives are encouraging.

Treatment research--clinical trials-- The NCI supported scientists have made significant advances in cancer treatment research. These advances have resulted in more effective and tolerable treatments, progress in combining therapies, advances in adjuvant therapy and the development of effect new anticancer agents. Many of these efforts are carried out through nationwide clinical trials into which NCI has been accelerating patient accrual. The institute will expand patient accrual into therapy trials conducted by the cooperative groups and the Community Clinical Oncology Program.

NCI continued to pioneer research on adjuvant therapy, a post operative treatment to prevent the recurrence of malignancy. Adjuvant clinical trials have produced a prolongation of disease free survival in breast cancer patients, regardless of whether lymph nodes are involved or are tumor free at time of surgery. Clinical trials for colon and rectal cancer, for childhood malignancies involving muscle, kidney, bone and other sites, and for some forms of lung cancer have produced similar results. New treatments based on blocking the actin of tumor growth factors with the compound suramin have produced responses in prostate cancer patients and hold promise as a treatment for this tumor.

Central to treatment research is the development and marketing of effective anticancer drugs and biologics. NCI maintains a screening system in which approximately five drugs per year are developed. These studies brought several compounds such as flutamide, carboplatin and ifosfamide/mesna to the FDA for approval during the last year. NCI should continue to work with FDA and the pharmaceutical industry to develop new drugs quickly. The NCI initiatives in AIDS drug development should continue to receive priority.

Preliminary results of studies of otherwise untreatable cancers such as malignant melanoma, involving adoptive cellular therapy in which the patient's own defense cells are used to kill cancer cells, may provide new effective therapies in the future. In January, NIH and FDA approved a proposal by NCI and National Heart, Lung & Blood investigators to transfer a foreign gene into host defense cells--so called tumor infiltrating lymphocytes. It may eventually be possible to enhance the clinical value to this adoptive cellular therapeutic approach by selecting and inserting genes that augment the tumor killing properties of the host defense cells. The institute is encouraged to determine whether these approaches can lead to practical new treatments.

Information dissemination--NCI has developed a comprehensive program of information dissemination activities, as part of the institute's efforts to reduce cancer mortality. Last year NCI issued a clinical alert to 13,000 practicing physicians and cancer organizations announcing preliminary results from clinical trials on the use of adjuvant therapy in early breast cancer. A follow up inquiry of physicians who received the alert

revealed that a significant percentage changed their therapeutic practice for the relevant breast cancer patients. Innovative ways of expanding information dissemination should be explored.

Data from the Surveillance, Epidemiology, and End Results Program indicate that many cancer patients may not be receiving the most up to date treatment for their particular type of cancer. NCI is committed to continuing efforts to increase usage of the Physician's Data Query system, a computerized data base that lists treatment options and available clinical protocols for all types of cancer. Other ways for enhancing physician and patient education should be explored.

Training--The institute is encouraged to seek innovative ways to increase the pool of scientists available for clinical investigative work and to give special attention to the training of minorities underrepresented in cancer research and therapy.

Supercomputer--The supercomputer has made it possible to predict the spatial structure of the products of HIV and those proteins associated with cancer transformation. With this information scientists may be able to design new drugs to effectively inhibit the growth of the AIDS virus. In addition, projects are being conducted using the supercomputer to design new strategies to treat cancer. The committee has included \$34 million in the Office of the Director to upgrade the capacity of the NIH's supercomputer.

Neurofibromatosis--The committee would like to be brought up to date on activities relating to neurofibromatosis. This update should include a discussion of the mechanisms of tumorigenesis in cancers complicating NF and how the cooperative clinical trial groups are addressing the challenges of tumors that complicate NF, including optic tumors, acoustic neuromas, sarcomas and meningiomas.

Proton beam therapy--The committee has provided \$1.5 million to conduct planning and development of a very limited number of referral centers for treatment of inoperable and inaccessible brain tumors through the use of proton beam therapy. The committee is impressed with the potential such a program will have on the effective treatment of certain tumors and vascular diseases. In addition to the funding of such a program, the committee directs that a report on the use of the funds and the potential effectiveness of the treatment be given within six months of the enactment of the bill.

Minorities-- The committee urges the institute to continue to expand its research initiatives related to minorities.

Committees Increase FDA Funding, Disallow User Fees, In Budget Markup

Congressional appropriations committees have disallowed the proposed user fees for FDA and have increased the agency's budget to fund more staff and facilities.

The Senate Appropriations Subcommittee, chaired by Sen. Quentin Burdick (D-ND), recommended an \$82 million increase over the agency's fiscal 1989 budget. The committee earmarked \$33 million of the increase for staffing, buildings, equipment and training.

The House Appropriations Subcommittee, chaired by Rep. Jamie Whitten (D-MS), recommended a \$62 million increase above the 1989 level.

Of the increase, \$13 million was directed to resource needs, including staffing, buildings and equipment.

A conference between the House and Senate to begin the final appropriations process is expected to take place in September.

Both committees disallowed the user fees proposed in the President's 1990 budget request. The committees fully restored the \$100 million to FDA that the Administration had proposed to be collected upon submission of applications to FDA for product approvals.

The Drugs & Biologics Centers of FDA would have had to collect about \$76 million in user fees under the President's budget. Most of the money would have been generated by fees charged for new drug applications and, possibly, investigational new drug applications. (The Cancer Letter, Jan. 27.)

The Reagan Administration first proposed user fees in 1985, but the idea was shot down by Congress under pressure from biotechnology and pharmaceutical industry associations. A second attempt two years ago also did not make it through Congress.

The FDA Council, a coalition of voluntary health organizations, nonprofit health groups, professional societies and industry, said the budget markups represented "tremendous support" for FDA in Congress.

"The great efforts of both the House and Senate committees are a strong indication that the message of resource needs for FDA is being listened to," said Terry Lierman, spokesman for the FDA Council.

"If we are ever to reap the fruits of our

research programs safely and quickly into the hands of consumers, we must give the FDA the resources to carry out its mission," Lierman said.

Long Term Hormonal Therapy May Raise Risk Of Breast Cancer

A group of 23,244 Swedish women who used replacement hormones for menopausal symptoms experienced about 10 percent more breast cancers than expected, Swedish and American researchers reported this week.

A more detailed study based on all 208 women who developed breast cancer and a random sample of 653 disease free women showed that the risk increased to 70 percent above expected levels among women who used the medications for nine years or more.

The study was published in the Aug. 3 issue of the "New England Journal of Medicine."

The two studies of Swedish women are the first to evaluate long term use of combination estrogen and progestin therapy, which has been extensively prescribed in the U.S. only since the early to mid 1980s.

Reports in the mid 1970s of increased incidence of endometrial cancer due to use of estrogens led to the addition of progestin to estrogen treatments for menopausal symptoms. An earlier analysis of Swedish women showed that the risk of endometrial cancer did not increase with the combination therapy of estrogen and progestin.

"Women and prescribing doctors will have to consider the risks and benefits when choosing whether or not to use or prescribe menopausal replacement hormones," said Robert Hoover, chief of NCI's Environmental Epidemiology Branch. Hoover is a coauthor of the study.

Short term use, typically sufficient for effective treatment of severe menopausal symptoms such as hot flashes and night sweats, does not seem to be associated with any observable increase in breast cancer risk, he said.

However, long term use, which is currently promoted to decrease the risk of osteoporosis and possibly cardiovascular disease, "presents more of a dilemma," Hoover said.

"At this time, it is difficult to know how to quantify and weigh the established and suggested benefits against the established and suggested risks."

Among those women in the random sample who used only the estrogen progestin

combinations for six or more years, breast cancer risk was more than four times higher than for women not prescribed hormones during this same time period.

Women who switched to estrogen progestin combination treatments for at least three years after having used estrogen alone had greater than twice the expected breast cancer risk.

Hoover advised caution in interpreting these estimates of risk because of the small numbers of women in these groups.

"While these high risks are worrisome, we currently interpret our findings conservatively as showing that estrogen progestin combinations do not reduce the excess risk of breast cancer that has been associated with long term estrogen use," Hoover said.

Use of the combination therapy for up to six years was not associated with any increased breast cancer risk.

Hoover said that only continued research will determine whether the addition of progestins to estrogen therapy actually increases the risk of breast cancer.

Authors of the study are Leif Bergkvist, Hans-Olov Adami, and Ingemar Persson at University Hospital, Uppsala, Sweden; and Hoover and Catherine Schairer at NCI.

The study was comprised of all women age 35 and older in the health care region around Uppsala. Women who had hormones prescribed for treatment of symptoms of menopause were identified through a study of prescription forms with each women's national identification number, a number issued by the Swedish government.

Incidence of breast cancer in this group was compared to the incidence among women who had not been prescribed hormones.

Recognized risk factors for breast cancer also were evaluated. Control for the influence of these factors--age at birth of first child, family history of breast cancer, previous breast biopsy for benign disease, and type of menopause (surgical vs. natural)--did not alter the estimates of risk due to hormone replacement therapy.

ACOS Planning Patient Care Studies Of Melanoma; Seeks Comparative Data

The American College of Surgeons Commission on Cancer is planning to conduct patient care evaluation studies of melanoma.

The Commission on Cancer's Committee on Patient Care and Research annually conducts patient care evaluation studies of selected

cancer sites. The committee has acquired a data base of more than 300,000 cancer cases through the voluntary participation of hospital based cancer committees. Data from these studies have shown trends in cancer patient care and have been used for professional education.

David Winchester, medical director in the Cancer Department of ACOS, and Glenn Steele, chairman of the Committee of Patient Care and Research, said in announcing the study that comparative data are now needed to assess the current management of melanoma.

The formats for PCE studies of melanoma have been mailed to hospital cancer registrars and central registries throughout the country. The studies include cases initially diagnosed of patients treated in 1981 and 1987. Complete confidentiality is assured.

Although each hospital will receive a summary of its data, only aggregate data will be released nationally. The analysis of the study results will be made available to hospitals, physicians and allied health professionals. Hospitals will receive a summary of the results and, when available, the published analysis.

ACOS has encouraged hospitals to submit data for these studies. Participation in any Commission PCE study is voluntary and does not affect the hospital's approved status.

Although the Committee on Approvals defines a PCE study year as the year in which the study was initiated, the melanoma studies will be exceptions to this rule.

Participants using these studies to fulfill their PCE requirements may use the melanoma studies to meet either the 1988 or 1989 patient care evaluation requirement.

The deadline for receipt of the data forms in the Cancer Department is Nov. 1. For publication information or other questions, call or write to the Cancer Department, ACOS Commission on Cancer, 55 East Erie St., Chicago, IL 60611-2797, phone 312/664-4050, ext. 441.

Home Test Detects Hematuria Earlier, Study Finds; Larger Trial Accruing

A pilot study at the Univ. of Wisconsin Clinical Cancer Center has found that a simple home urine test can detect serious bladder and kidney disorders at their early, most curable stages.

The pilot study, conducted from 1986 to 1987, involved 235 male subjects over age 50

who had no history of hematuria or other symptoms of urinary disease.

A larger study ultimately involving 4,000 men enrolled in several major Wisconsin health care providers has just begun to accrue patients.

The test uses treated strips of paper to detect minute amounts of blood in urine, often an early warning of disease.

"Traces of blood may be present in urine long before any symptoms of disease appear," said study director Edward Messing, UW Medical School associate professor of surgery and human oncology.

Widespread use of the test may lead more people at risk to consult a physician earlier, Messing said.

Of the 235 who participated in the preliminary study, 31 detected blood in their urine using the test and agreed to a complete urologic exam. Fifteen were found to have serious disease that required immediate attention.

Eight of the men with serious problems had cancers, three in the kidney and five in the bladder. "None of them had a clue that anything was wrong," Messing said.

The participants were instructed to test their urine once a week for 12 months using the paper strips, which change color when microscopic amounts of blood are present.

Messing noted that the amount of blood in the urine has little to do with the severity of the disease. Since hematuria occurs intermittently, it is possible that a single urinalysis performed during an annual checkup may fail to reveal blood.

"Testing urine with the strips repeatedly at home may catch infrequent bleeding and detect a potentially serious problem early," he said.

The participants reported that the strips were convenient and easy to use, and are inexpensive. A year's supply of strips costs about \$8. A urinalysis done at a hospital costs between \$10 and \$15.

While laboratory tests have proven the strips as accurate as urinalysis in detecting hematuria, Messing says there is ample evidence that they are reliable when used in the home.

The follow up study will further evaluate the test's ability to identify early urologic disease as well as analyze costs involved in performing a urologic examination on all participants who test positive for hematuria.

"Unfortunately, more than half of those with potentially life threatening urinary tract

tumors are seeing their doctor after the tumor has already invaded deeply. By then it's often too late."

"Ultimately, we would like to determine if using these strips translates into reduced morbidity and mortality from urological cancers or other serious diseases," Messing said.

The extended study is funded partially by Ames Division of Miles Laboratories Inc., manufacturers of the chemical strip, and through the Wisconsin Cancer Control Initiative.

The one year initiative, part of Wisconsin Gov. Tommy Thompson's budget proposals last year, funded projects aimed at controlling and preventing cancer in Wisconsin.

Data from the preliminary study was published in the "Journal of Urology," Vol. 137, May 1987.

Allegations "Reflect Misunderstanding Of Law And Technology," PDS Says

Pan Data Systems Inc. said that allegations contained in a recent article in the "Washington Business Journal" "reflect a basic misunderstanding of law and technology."

The recent article cited confidential sources in saying that part of an HHS investigation of an NCI scientist focused on whether the company had illegally obtained human herpes viruses and retroviruses from the institute.

The scientist, Sayid Zaki Salahuddin, is under investigation for possible conflict of interest because his wife was one of the founders of the company. The Salahuddins maintain that they have no financial interest in the firm.

The **Cancer Letter** learned that after finishing the story for WBJ, the reporter sent an advance copy to The New York Native, a fringe publication, which ran the story, spicing it up with a variety of accusations. (The **Cancer Letter**, July 21.)

"Two recent newspaper articles have erroneously and unfairly suggested that Pan Data Systems Inc. improperly obtained certain human herpes viruses and retroviruses from the National Cancer Institute, which are offered for sale in PDS's catalogue," the company said in a statement released last week.

"The articles were allegedly based on a GAO inquiry, which in turn was based on allegations made by a former PDS employee after PDS requested that the employee not

exploit PDS's proprietary scientific information and processes to market herself to a competitor.

"PDS strongly denies these assertions and innuendos, which reflect a basic misunderstanding of the law and technology in this complex and developing area. To begin with, a virus, such as HIV, is not in itself an invention, but exists in nature....

"To suggest that PDS misappropriated viruses... is preposterous....

"With respect to the allegations concerning Zaki Salahuddin, PDS noted that there is nothing improper in a government researcher having a scientific and friendship relationship with a company or its officials, and discussing information of common interest. Moreover, PDS understood that Salahuddin was an independent contractor to NCI, as are other individuals and companies. At no time did Zaki Salahuddin have an ownership interest in PDS, a reported issue of dubious legal relevancy in any event, given the fact that... Salahuddin did not award PDS any government contracts that PDS had bid upon, and given the fact that he was an independent researcher.

"Salahuddin apparently was invited in 1988 by a private company to sit on a review panel created by the private company to review proposals for a small subcontract it was going to award. Thereafter, PDS submitted a bid to the private company for the \$10,500 subcontract. Neither Zaki Salahuddin, nor his wife Firoza, had any interest in or relationship with PDS in 1988.

"Firoza Salahuddin, who had been one of the founders of PDS in 1984 when the company was organized to provide computer accounting services, relinquished her ownership interest in late 1984. She returned to the company in October 1985 until July 1986, when this relationship ended.

"The company categorically denies any wrongdoing by it or Zaki Salahuddin in connection with the award of contracts by the National Cancer Institute to PDS, which were made on the basis of merit and the proven capability of PDS."

DeVita Named President Of CCCR United States Board Of Directors

Vincent DeVita, physician in chief of Memorial Sloan-Kettering Cancer Center, has accepted the position of president of the Coordinating Council for Cancer Research United States Board of Directors.

The Coordinating Council for Cancer Research, a relatively new player on the international cancer research scene, is a nonprofit foundation whose mission is to support worldwide coordination of cancer research programs by fostering collaboration between teams of international scientists. Jacques Crozemarie, president of the French Assn. for Research on Cancer, is international chairman of CCCR.

Other members of CCCR's U.S. board are Alice Fordyce, executive vice president of the Albert and Mary Lasker Foundation; Peter Fischinger, vice president for research of the Medical Univ. of South Carolina; George Brakeley, president of Brakeley, John Price Jones; Sara Vagliano, president of the French-American Foundation; and Richard Bernstein, Richard K. Bernstein Associates, attorneys.

CCCR's operation involves identifying existing resources and providing initial funding for basic cancer research and clinical studies on prevention, early detection, diagnosis, and treatment of cancer. Its activities are intended to complement the existing public and private efforts of nations involved in those activities.

CCCR is in partnership with the French Assn. for Research on Cancer (ARC), the largest European foundation supporting cancer research; and major cancer research institutions in six other nations.

Within the U.S., CCCR has coordinated collaborative programs with NCI, NIH, Memorial Sloan-Kettering, and Massachusetts General Hospital. These include:

- * A three year, \$136,000 joint project between African and French scientists involving the first clinical testing of an AIDS vaccine on humans.

- * A five year research agreement between Massachusetts General Hospital in Boston, lead by Jack Wands, and the French ACR in Villejuif, led by Dominique Bellet. This group has already developed tests to detect thyroid and testicular cancers.

- * A collaborative project between Steven Rosenberg of NCI and four clinical researchers in France on the use of interleukin-2 as well as other forms of immunotherapy.

- * With ARC, a program to provide over 100 international fellowships each year, providing financial and administrative support for up to two years for post doctoral scientists on the basis of their scientific merit and collaborative projects.

CCCR is planning to establish an International Fund for Scientific Exchange and

Innovation, to encourage international mobility of scientists and stimulate joint collaboration on innovative cancer research. These grant funds will support information exchange, technology transfer, and research networking for future projects. In addition, they could be used as start up funding to test innovative approaches and gather preliminary and promising results prior to applying for multiyear research grants.

By the end of 1990, CCCR hopes to be able to initiate projects totaling approximately \$5 million to be spent worldwide, including:

- 50 projects on basic and applied cancer research.

- 35 projects on AIDS and AIDS related cancers.

- 100 awards for scientific exchange and innovation.

Since 1983, CCR, ARC, and NIH have sponsored five international conferences to support and stimulate cancer research. The most recent was last January in Venice; the next is planned for Jan. 9-11, 1990, in Rio de Janeiro.

CCCR solicits grant proposals twice each year through announcements to the scientific community. The organization also accepts unsolicited proposals.

Applications are reviewed by CCCR's Scientific Advisory Board using an international peer review system. Each proposal is reviewed by two members of the board who have a particular expertise in the field outlined in the proposal.

Proposals are evaluated on the basis of scientific merit, originality, credentials of the principal investigator, ability of the international scientists to conduct the research, facilities and resources available at the collaborating institutions, and potential contributions of the project to the field of cancer research.

CCCR is in the process of developing an agreement between U.S. cancer centers and European cancer programs for joint training programs; identifying workshops and seminars which can be supported jointly; and identifying research projects suitable for joint funding.

CCCR's U.S. headquarters is at 555 Madison Ave., Suite 2900, New York 10022, phone 212/319-6920.

CCCR is represented in the U.S. by Capitol Associates, 426 C St. NE, Washington DC 20002, phone 202/544-1880.