THE CANCER LETTER

Vol. 13 No. 38

Oct. 2, 1987

Subscription: $160 year North America, $175 year elsewhere

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NCAB Can't Decide Fate of Women's Health Trial, Forces It Back Into Lap of DCPC Scientific Advisors

"I voted in my mind, 5.1 to 4.9," National Cancer Advisory Board member Bernard Fisher said near the end of a four hour debate on whether to continue the Women's Health Trial. Fisher's dilemma reflected that of the Board, which was no

(Continued to page 2)

In Brief

BRI Gets New FCRF Basic Research Contract; Senate Subcommittee Less Generous Than House

NCI HAS made the fifth and final contract award in the recompetition of Frederick Cancer Research Facility contracts. In this case, there wasn't any competition--no one challenged the incumbent, Bionetics Research Inc., for the basic research contract, as previously reported by **The Cancer Letter**. Amount of the contract for the first year is $12,141,350. While the other contractors all received seven year awards, BRI is assured only of the first year, with six one year renewal options. That reflects NCI's concerns relating to BRI's parent company, Organon-Teknika, a Netherlands owned firm. NCI executives are still worried about the prospect of U.S. government developed technology winding up in the hands of a foreign company, and they are not entirely convinced that Organon-Teknika will leave the present BRI management in place. They have no problems with principal investigator George Vande Woude and his staff, who they feel have been doing superb research. . . . **SENATE** Appropriations Subcommittee's figure of $1.524 billion for NCI did include about $90 million for AIDS research, contrary to the information given to **The Cancer Letter** last week. That makes NCI's total about $18 million less than approved by the House. Some senators may try to increase NCI and other NIH funds when the full committee takes up the bill, probably this week. . . . **NOMINATIONS** are now being accepted for the 1988 Bristol-Myers Award for Distinguished Achievement in Cancer Research. Nominations may be made by an officer of a medical school, free standing hospital or cancer research center and must be in by Dec. 1. Contact Secretary, Bristol-Myers Award, 345 Park Ave., Room 43-38, New York 10154, phone 212/546-4337. . . . **TWO M.D. ANDERSON** staff members--Emil Freireich and Edmund Gehan--received the Biomedicine and Pharmacotherapy Prize at the meeting of the International Society of Medical Ethics, Philosophy, Methodology & Economy in Paris.

NCAB Waffles, Sends Women's Health Trial Decision Back To DCE Board

(Continued from page 1)
better prepared to decide the $100 million plus than was the Div. of Cancer Prevention & Control Board of Scientific Counselors. That Board voted 6-5 against killing the trial, 7-4 against continuing it, and eventually and unanimously to study the issues for another four months.

That is what the NCAB finally did, in approving Roswell Boutwell's motion to return the matter to the DCPC Board with the recommendation that it appoint a committee to consider again all the points involved in the controversy. Boutwell's motion made it clear that the DCPC Board would have to make the final decision at its January meeting.

Epidemiologist Brian Henderson, director of the Norris Cancer Research Center at the Univ. of Southern California, suggested during the debate that a large case control study might turn up some data that could resolve some of the objections raised by critics. Board member Helene Brown, in discussing Boutwell's motion, said that the new BSC advisory committee could consider recommending a case control study, in line with the request of the trial's Policy Advisory Committee.

"What I understood Ros' motion to be is precisely what you said," NCAB Chairman David Korn said. "That is correct," Boutwell added.

The NCAB vote was 13-3, with Fisher, Brown and Enrico Mihich opposed and Geza Jako abstaining.

The three opposed felt that the NCAB should make the decision, and/or that it was at least as qualified as the BSC to make it.

NCI Director Vincent DeVita said that a case control study had been considered but that there was doubt enough women could be found who had been on the low fat diet (20 percent of calories from fat).

The NCAB heard presentations by Maureen Henderson, principal investigator for the trial's clinical unit at the Univ. of Washington, and Ross Prentice, PI for the statistical unit, also at Seattle. They were substantially the same as presented to the DCPC Board last week (**The Cancer Letter**, Sept. 25).

Paul Engstrom, chairman of both the DCPC BSC and the PAC, presented the latter's rationale for not proceeding with the full study.

DeVita had asked Brian Henderson and Marc Lippman to present their opinions of the trial. Lippman is head of the Medical Breast Cancer Section in the Div. of Cancer Treatment; both have won international recognition for their research in the disease.

Henderson's most recent award was the Rosenthal Foundation at the American Assn. for Cancer Research (**The Cancer Letter**, June 5). In his lecture there, Henderson presented evidence pointing to estrogen as the most important etiologic agent in breast cancer. If ovulation, which increases estrogen flow, can be delayed or interrupted, the risk can be significantly reduced, he said.

Henderson told the NCAB that the Women's Health Trial "is a test of the wrong hypothesis." He said that body weight and mass are more important factors than dietary fat because they contribute to estrogen circulation. He suggested that a trial of low dose tamoxifen, which would end ovulation, be undertaken with women starting at age 35 and ending at age 55. That would reduce the risk of breast cancer to 27 percent of the national average, he said.

Lippman said the Women's Health Trial "is greatly flawed" by the lack of an objective method to measure dietary compliance. He said he was also concerned by the prospect that neither the control nor intervention groups will remain stable over 10 years. "Enormous pressures" which exist throughout the country now to reduce fat and increase fiber in the diet could impact the control group and confound results. Other factors such as the type of fats consumed could have an effect on the results, he said, noting that certain fish oils now are seen as potentially protective against cancer.

Compliance and accurate reporting of foods consumed were Lippman's chief concerns. "If 100 women ate cheeseburgers before the survey (taken periodically of intervention group members), I'm not sure all 100 would admit they had eaten cheeseburgers."

Donald Iverson, DCPC Board member and chairman of the trial's Steering Committee, said that if the women enrolled so far in the trial (1,500 in all) "are lying, they lie very well and consistently as a group."

Iverson said he doubted if any new data could be obtained for or against the trial in four months. "Every issue that was brought up today has been debated for months."

NCAB member Louise Strong noted that various problems such as the potential con-

founding effects and the lack of a marker to check on compliance "was known all along. What changed? (to convince PAC to recommend against the trial)."

"The major factor was that now we had to make a final decision," Engstrom said. "The issues were still as clouded in 1987 as they were in 1985." He said that PAC was close to unanimous in its final decision, made last month, while the members were split over the issues prior to then.

Maureen Henderson charged that PAC's changing membership and lack of understanding of its mission contributed to its negative recommendation. Each time the membership changed, the new members "had to come to grips with the details, and the essential features tended to get lost."

Also, the changing composition of PAC led to confusion over its role. "They didn't know if they were reviewers or advisors," Henderson said. "If they are advisors, you say 'Here are the problems, help us solve them.' If they are reviewers you say 'Here's what we're doing and how well we're doing it.' We were taking our problems to PAC and they were behaving as reviewers, and they worried about spending the money."

Engstrom disagreed. "It was clear we were advisors, although we did have to be reviewers in July and August."

DCT Director Bruce Chabner, noting that the chief support for the hypothesis is the low fat diet in Japan and low breast cancer incidence there, suggested that the Oriental diet is different in other ways and asked for comparisons with western countries.

Prentice presented charts showing incidence of Polish immigrants to the U.S., UK and Australia, all of which followed the Japanese pattern of increasing breast cancer incidence when migrants adopt the higher fat diets of their new homelands. But Chabner noted in the chart that France has a higher fat diet than the U.S. and a lower breast cancer incidence.

Div. of Cancer Etiology Director Richard Adamson said that Eskimos have a high fat diet, but it is primarily fish oil, and they have a low breast cancer rate. He also said he believed that the trial should involve younger women (it starts with age 45).

Prentice, responding to the hormone vs. dietary fat issue, said that if hormones were the major factor, U.S. male breast cancer incidence would not be five times that of Japan's.

DCPC Board Approves "Working" Guidelines For Early Detection

The Board of Scientific Counselors of NCI's Div. of Cancer Prevention & Control unanimously approved "working recommendations" for early detection developed by a committee of the Board in collaboration with representatives of 16 professional medical organizations.

Board member Donald Hayes chaired the committee and presented the recommendations to the Board last week.

The term "working recommendations" was adopted, Hayes said, because "even in cancer of the cervix and breast, all age group guidelines may not have been confirmed to the satisfaction of all as having shown a mortality reduction. These working recommendations should make possible more uniform guidelines which are compatible and acceptable to the medical professional organizations, the American Cancer Society and also be promulgated by NCI. It was also agreed that every effort should be made to develop uniform recommendations which all organizations can support and promulgate. These recommendations will be subject to change in the future when more scientific information is available from studies underway as well as new studies that might be initiated."

Good Medical Practice

The recommendations were preceded by this statement:

"The general overall approach of the working guidelines is to address the needs of patients in the physician's office.

"It seems advisable that the principles of good medical care should be encouraged, such as a complete physical examination which includes an examination of the skin, oral cavity, lymph node bearing areas, breast, cervix and pelvic examination and Pap smear or testicular examination and a rectal examination of the prostate. Patients with suspicious symptoms should have appropriate diagnostic tests. In short, NCI should encourage good medical practice.

"In addition, it was agreed that patients should be encouraged to be responsible for their own health as much as possible. Patients should be educated in good health principles, such as abstinence from smoking, avoiding severe sunburning and tanning, dietary recommendations, high risk factors and periodic self examination, for example in breast, testicular and skin self examination.

"In the above context, the committee suggested working recommendations for the following sites:

"1. Skin. That all individuals should be encouraged to examine their skin thoroughly on a regular basis. That primary care physicians be encouraged to examine the skin as part of the periodic health examination. That further public and professional education on the role of sunlight in the causation of skin cancers and melanomas and on the early detection of skin cancers and in particular malignant melanoma be carried out. Excessive sun exposure and tanning should be avoided. Sun screens should be used as well as protective clothing and wide brim hats for those at high risk.

"2. Breast. That inasmuch as 70 percent of women discover their own breast cancer, physicians should continue to encourage monthly breast self examination. That physicians be encouraged to do clinical breast examinations on all female patients in whom they are doing a periodic examination. That beginning at age 40, a mammogram should be encouraged every one to two years until the age of 50 after which it should become annual.

"3. Uterine cervix. That all women who are, or have been sexually active, or have reached the age 18 years, have an annual Pap test and pelvic examination. After a woman has had three or more satisfactory normal annual examinations, the Pap test may be performed less frequently at the discretion of her physician.

"4. Colorectal cancer. That a rectal examination be included as a part of the periodic health examination. That at the age of 50, annual fecal occult blood testing and a sigmoidoscopy every three to five years be done. That the physician should identify for special surveillance high risk patients including those with a strong family history of colon cancer, or with a personal history of polyps, colon cancer or inflammatory bowel disease.

"5. Testicular cancer. That periodic (monthly) testicular self examination be encouraged beginning at 15 years of age. That routine palpation of the testicles by a physician during physical examination should be carried out as part of the periodic health examination.

"6 Prostate cancer. That routine annual digital rectal examination of the prostate be performed on all males over 40. That more specific education and training be given physicians in the detection of prostate cancer, possibly using mannequins or other teaching devices."

At the insistence of Board member Edward Bresnick, a recommendation was added calling on physicians and dentists to routinely examine the oral cavity of patients for early detection of oral cancer. Hayes had noted that the Board would have to accept or reject the recommendations of the committee as a block, since it represented a consensus of the 16 professional organizations. However, Bresnick argued, "This is a recommendation of this Board, not the committee. We can accept the committee's recommendation, then add this on." That was done.

Hayes pointed out that the recommendations were for early detection and not mass screening. "The criteria for screening might be more stringent than private practice physicians use for early detection."

Board member Philip Cole, after praising the work of the committee as "a fantastic job," objected. "In the first place, I thought the committee should deal with the broader issue of mass screening, not just the physician's office. I also disagree that it is different in the physician's office than in screening."

Cole added that DCPC should see to it that the recommendations are regularly updated. Also, "I found gratuitous the primary prevention advice, avoiding sunburn, etc. That detracts from the message."

After the recommendations were accepted and the addition on oral cavity examination approved, Cole carried on the discussion on screening. "We should be extremely concerned about the positions of the American Cancer Society and NCI on breast cancer screening. The Breast Cancer Detection Demonstration Project showed a 30 percent reduction in mortality with mammography. It is appropriate for NCI to take a more aggressive position on this."

Board Chairman Paul Engstrom said to Hayes, "Your committee hasn't been put out of business. Could you continue and look at screening?"

"We could if we get that charge," Hayes answered.

"I will be happy to give you that charge," Engstrom said. "The sentiment of the Board is to thank you for the good work and ask you to take on the more treacherous work of developing screening guidelines."

DCPC Board Okays CPRU Program, Over $10 Million Total In Concepts

A Cancer Prevention Research Unit Program, rejected by the Board of Scientific Counselors of NCI's Div. of Cancer Prevention & Control last May, received concept approval from the Board at its meeting last week.

The new program will support up to five multidisciplinary groups which will conduct primary and secondary prevention, health promotion and preventive services research.

The Board also gave concept approval to a variety of other grant, contract and interagency agreement supported projects with an estimated total first year funding of more than $10 million.

The CPRU concept was turned down by the Board previously for a variety of reasons, most of which were eliminated in the staff's redrafting of the program. Major changes were:

*Allowing all aspects of cancer prevention related to DCPC's mission to be investigated.

*Allowing flexibility for investigators in the choice of relevant research questions and program design.

*Allowing all phases of cancer control research (the previous proposal was limited to phases 4 and 5).

*Allowing only phase 4 or 5 studies in the areas of breast and cervical cancer screening and in smoking prevention and control, as consistent with the Year 2000 objectives.

*Deletion of the training and matching fund requirements.

*Using a single type of grant instead of two types.

The need for one program themes, availability of developmental funding, and use of the program project grant as the funding mechanism will continue.

Staff had proposed that up to 10 percent of direct costs be available for developmental funding, but the Board increased that to 15 percent.

DCPC has earmarked $4 million for total first year cost of the grants, which will be awarded for five years.

Carlos Caban, acting chief of the Cancer Control Applications Branch and CPRU program director, said the RFA would be issued by mid-October, with letters of intent due in early December, applications due in late April or early May, and funding to start by December, 1988.

Concept statements and Board discussion:

Cancer Prevention Research Unit Program.

These CPRUs will conduct primary and secondary prevention, health promotion and preventive services research aimed at developing new intervention approaches in all areas of cancer prevention, or aimed at applying proven or state of the science interventions in the smoking and screening areas identified in the cancer control objectives for the Year 2000.

The cancer control objectives report summarizes the status of prevention research efforts and points to the need for additional work in developing intervention approaches in primary and secondary prevention and health promotion. It also emphasizes the need to apply current intervention knowledge and technologies in breast and cervical cancer screening and prevention and cessation of tobacco use in order to meet the stated Year 2000 goals.

The CPRU program is targeted to speed up the establishment of high quality multidisciplinary research programs in these areas, and will be supported by the NCI program project (PO1) mechanism.

Traditionally, the program project approach has resulted in the development of long term research programs investigating important research problems, has fostered interdisciplinary and interinstitutional collaborations, and has led to new insights and progress in meeting research goals. The intent is to make this happen in cancer prevention research through this RFA.

Previous efforts at developing new multidisciplinary research programs in cancer prevention and control have been encouraging and set the stage for this effort. Two Cancer Control Research Units, which required two defined population (phase 4) studies, have been established, at Fred Hutchinson Cancer Center in Seattle and at Yale Univ. in New Haven and have brought together multidisciplinary groups on important research problems in primary and secondary prevention. These grants are also now program projects and will submit renewal grants for continuation when necessary, using the name Cancer Prevention Research Unit. They will not be eligible for this RFA.

A second effort has been the Cancer Control Science Program grants, which began as an RFA effort and has been a program announcement since 1984. These are also program project grants in all areas of cancer prevention and control. There are currently seven of these CCSPs; two earlier ones resulted in a successful renewal and a successful replacement grant. Additional ones are under development at a number of other institutions which have submitted or plan to submit letters of intent. These grants involve a variety of research projects in specific theme areas relevant to cancer control, and are primarily phase 2-4 studies. Investigators may continue to develop CCSPs and submit their applications at the three normal grant deadlines each year. CCSPs will be eligible to compete under this RFA.

The CPRU should include the following scientific and organizational elements:

--An emphasis on cancer prevention consistent with the mission of DCPC.

--One major specific research theme to focus the CPRU efforts, and at least three research projects within the theme area.

--Research in breast and cervical screening and in smoking prevention and cessation which will be required to be phase 4 or 5 studies.

--Specific plans for developmental funds and shared resources which can be carefully peer reviewed before approval.

--A multidisciplinary group of prevention oriented scientists who are capable of conducting the proposed research.

--Evidence of appropriate collaborative arrangements with the appropriate organizations or population

groups necessary to conduct the studies.

Board member James Holland expressed concern about funding priorities. "Where will the $4 million come from? What won't get funded in order to fund this?" he asked.

"It will come from the PO1 pool at NCI, competing against all other scientific areas of NCI. It will have to hold its own," Caban answered. Responding to Holland's question if it will compete against centers, Caban pointed out that center core grants are in a different pool.

"No matter what the mechanism is, the fact that this is an RFA means sequestered money," Board member John Ultmann said. "Dr. Holland put his finger on the problem. This RFA means you have identified an area with priority and you have identified the bucks to back it up. It may achieve a negative impact on other program areas, and still maybe not compete scientifically."

"All other programs compete within their own program areas," Caban said.

DCPC Director Peter Greenwald explained further how the system works. "We do have to identify the money for an RFA. We can move money into RO1s if there are not enough good applications from the RFA. We're not invading the investigator initiated pool."

"But it does diminish the amount of money available for other programs," Holland insisted.

"Anything we do has to be" at the expense of something else, Greenwald replied.

"If none of these (responses to this RFA) competes successfully, then you have donated $4 million to the RO1 pot," Holland said. "I submit there are already things in this division not funded very well."

Responding to Board member Frank Meyskens' question, Caban said that phase 1 studies are not included and that applied epidemiology is. Greenwald added that applied epidemiology would have to be specific, leading to interventions within two years. Meyskens also asked if laboratory research is included and was told that it is.

Caban said that existing CCRUs and CCSPs were excluded from applying for the CPRU awards, in order to foster more widespread development of cancer prevention research around the country.

"I don't understand," Meyskens said. "Some of those may be ready to expand to this type of research." He agreed that CCRUs should be excluded.

Board members Donald Iverson and Virginia Ernster argued for raising the percentage permitted for developmental funds from 10, as proposed by staff, to 15. The Board agreed, and that was included in the motion approving the concept, along with the revision permitting CCSPs to compete.

Staff had also asked that the RFA be issued each year for three consecutive years. "That's a soap bubble built on a dream," Holland remarked. Ultmann pointed out that that could commit DCPC to a total of $48 million over five years. Approval was limited to one year, with any subsequent issuance subject to Board approval at that time.

Analysis of fiber and fiber components in food. Recompetition of two contracts now being performed by the Univ. of Wisconsin and Cornell Univ. The new contracts will be awarded for three years, with an estimated total cost for both of $400,000 per year.

Major objectives of these contracts will be to design and execute a statistically valid food sampling plan of fiber containing foods which would be representative of foods in the U.S. diet by food type, geographical region, and season; and to analyze these foods for total dietary fiber, soluble and insoluble fractions, and the major fiber components, cellulose, hemicellulose, pectin and lignin.

The contractors shall perform the following four tasks:

A. Analytical procedure--Validate a reliable method for the analysis of total dietary fiber, the water soluble and insoluble fiber fractions, plus cellulose, hemicellulose, pectin and lignin; and develop and validate quality control and reference standards.

B. Food sampling--Design and execute a statistically valid plan for sampling of representative fiber containing foods stratified by food type, geographic region, and season, that constitute important sources of fiber in the U.S. diet; and prepare foods to correspond to their as eaten condition and analyze them to determine fiber and fiber components.

C. Conduct a limited investigation into the effect of food processing procedures on fiber and individual fiber components of foods.

D. Provide NCI with a fiber data base.

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The dollar estimates with each concept brought before the various boards of scientific counselors or other advisory groups are not intended to represent maximum or exact amounts which will be spent on those projects. They are intended as guides for board members to help in determining the value of the projects in relation to the resources available to the entire program or division. In the case of RFAs, the amounts cited are the maximum that will be set aside to fund those particular grants, the final amount depending on NCI's budget and program priorities. Responses should be based on workscope and description of goals and methods included in the RFPs (contracts) or RFAs (grants and cooperative agreements). Availability of the RFPs and RFAs will be announced when NCI is ready to release them.

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Preclinical toxicology of chemopreventive agents. Recompetition of a master, for three years at an estimated total cost of $900,000 a year.

The primary objective of this study is the preclinical toxicology evaluation of various selected chemopreventive agents. The studies will include acute, subacute/subchronic and chronic toxicity evaluation on selected chemopreventive agents. The studies will be conducted on two species of animals (rodents and dogs) and may include in addition to conventional short term studies, and lifetime studies in rodents, multigeneration teratogenicity studies as well as carcinogenicity assays.

The chemopreventive agents that are selected for preclinical toxicology evaluation are those agents having the highest priority for clinical relevance and potential after having been evaluated by a rigorous selection process which is as follows:

Each potential agent undergoes a systematic literature review to evaluate clinical, laboratory and epidemiologic research data. If the data provide evidence of tumor inhibition and a reasonable prospect of safety, the agent is further evaluated by several criteria. These include the dose at which it is efficacious, the number of organ model systems in which activity has been confirmed, the evidence that it has an inverse association with human cancer risks, the data supporting in vitro inhibitory activity, and the reasonable prospect of the agent's availability.

If the agent has a high priority based upon the published literature, it is entered into the chemoprevention preclinical laboratory program to obtain information necessary to further characterize the agent and to potentially qualify it for clinical studies. This includes carrying out in vitro screening in selected transformation assays and in vivo screening for efficacy in a battery of animal model systems, determining the efficacy and safety of single and combination agents in dose response studies in animal systems relevant to potential human applica-

tion, acquiring and/or producing the agent in sufficient quantity to accomplish this work, and determining its purity and stability. If the agent remains of high priority based on this efficacy evaluation and the other selection criteria, it is entered into preclinical toxicology evaluation as required by FDA as the last step before phase 1 human evaluation.

Presently, 25 agents or regimens are being studied in in vivo efficacy screening studies with testing on an additional 25 new compounds, selected with the advice of extramural experts beginning in vivo efficacy screening this year. Ten agents or cominbations of agents are undergoing extended animal efficacy testing at present with more to be added this year and it is anticipated that several of these compounds will yield efficacy activity to justify the rigorous evaluations of their toxicity in preclinical toxicity studies as the final evaluation needed to obtain an IND from FDa for phase 1 clinical studies.

Master agreement orders will be issued to all investigators/institutions who are deemed via peer review to be qualified for carrying out the proposed tasks. As agents become available, applications will be requested and reviewed, and the best proposal will be selected for funding and implementation. Up to five new agents will be studied each year; the number of studies will be determined as necessary for each compound evaluated. All master agreement order holders will be asked to submit a master protocol in their technical proposals which detail all aspects of the study except those determined by the specific chemopreventive agent. A standardized protocol will be developed by program staff for each type of study and for each chemopreventive agent. This standardized protocol follows very closely that established by the National Toxicology Program (including extensive detail on the number of experimental groups and controls, statistically valid group sizes, number of doses of chemopreventive agents, standardized test for purity of the agent, and preparation of the agent in the diet, standardized tests for assay of the agent in food and in sera, criteria for animal evaluation including source, care monitoring and pathology evaluation.

RFAs Available

RFA 87-CA-34

Title: Development, validation and application of biochemical markers of human exposure or susceptibility for use in epidemiologic studies
Letter of intent receipt date: Nov. 16
Application receipt date: Dec. 10

The Div. of Cancer Etiology invites applications for cooperative agreements to further the effective use of biochemical markers as exposure or susceptibility indices in future epidemiologic studies. Although the awards will be made and managed by NCI, staff involvement and participation in funding on the part of the National Institute for Occupational Safety & Health, National Institute of Environmental Health Sciences and Environmental Protection Agency is anticipated.

The purpose of this announcement is to solicit applications directed toward the further development of biochemical markers of exposure or susceptibility to increase the power of epidemiologic studies in which they can be utilized. It is hoped that the findings from such studies would be widely applied by the epidemiologic research community in the design of future studies.

The specific objective of the initiative is to encourage investigations designed to develop, characterize, validate and apply biochemical markers of human exposure (which has occurred in the recent or distant past) or susceptibility, which would be useful in the conduct of epidemiologic studies.

Applications funded under this RFA will be supported through the cooperative agreement mechanism. Involvement of staff members will be nondirective and will not control the research activities to be carried out. It will be limited to consulting on proposed methodologies to maximize their epidemiologic utility; providing a resource of information on the extent and distribution of exposures; providing information on, and access to, cohorts of individuals which could provide material for methods development and validation; and facilitating the exchange of information and materials among the awards.

Nonprofit and for profit organizations and institutions may apply. It is anticipated that six awards will be made under this RFA. DCE has set aside $1 million for first year funding of these awards.

The concept from which this RFA was derived was approved by the DCE Board of Scientific Counselors at its last meeting and was reported in the July 10 issue of **The Cancer Letter**.

Copies of the complete RFA and additional information may be obtained from A.R. Patel, PhD, Extramural Programs Branch, DCE, NCI, Landow Bldg Rm 8C16, Bethesda, MD 20892, phone 301/496-9600.

RFA 87-CA-37

Title: Cancer prevention and control research small grants program
Application receipt date: Dec. 10

The Div. of Cancer Prevention & Control invites small grants research applications in areas relevant to the cancer prevention and control program.

New as well as experienced investigators in relevant fields and disciplines (e.g. disease prevention and control, medicine, public health, health promotion, epidemiology, social work, nursing research, nutrition, health policy, health services research, and behavioral sciences (social psychology, health education, sociology, community organization) may apply for small grants to test ideas or do pilot studies.

Cancer control is defined as the reduction of cancer incidence, morbidity and mortality through an orderly sequence from research on interventions and their impact in defined populations to the broad, systematic application of the research results.

Cancer control research studies are classified into one of five phases which represent the orderly progression noted in the definition: phase 1, hypothesis development; phase 2, methods development and testing; phase 3, controlled intervention trials to establish cause and effect relationships; phase 4, research in defined, human populations; and phase 5, demonstration and implementation studies. DCPC is primarily interested in research on intervention in phase 2 through 5.

Within the small grant program, investigators may choose any of the full range of scientific approaches in their work. Many studies and research designs may contribute to the design, implementation or evaluation of future phase 3-5 studies, e.g. descriptive baseline surveys, testing, modification and validation of surveys or program materials for use in the proposed population groups, testing of recruitment or compliance procedures for participants, etc. The research may occur in a variety of settings, such as communities, schools, health departments, worksites, etc. These investigators will become part of the new nationwide group of scientists pursuing cancer control research goals.

Cancer control program areas appropriate for research grants include human intervention research in the following areas:

*Prevention (chemoprevention, diet and nutrition,

and early detection).

*Health promotion sciences (modifying personal, social and lifestyle and health care system factors which contribute to cancer prevention and control).

*Smoking prevention and cessation.

*Applied epidemiology (using epidemiologic methods to determine the association between exposure to an intervention and its impact on disease).

*Planning, epidemiologic and survey studies aimed at developing cancer control interventions.

*Applications research in modifying, feasibility testing, and adopting proven, state of the art intervention programs and strategies from other research projects in state and local health agencies or other community settings. Also adaption of state and local health agency data bases for cancer control planning and evaluation.

*Community oncology (improving the application of patient management and continuing care research advances into community settings).

Studies to determine the efficacy of chemotherapy, surgery, radiotherapy and other primary treatment interventions are not considered cancer control research under this RFA. Other animal studies are not allowed.

Applicants may be established researchers, new investigators, qualified staff of public health departments and collaborating agencies, and predoctoral investgigators. Dissertation research proposals are allowed.

The only ineligible individuals are those who are or have previously been principal investigators on NCI funded cancer control grants or contracts for more than two years.

Awards will be made as research grants. Total costs, including indirect, must not exceed $35,000. The duration of support is one year but may be up to two years of the $35,000 funding limit is not exceeded for the entire project.

Copies of the complete RFA and additional information may be obtained from Carlos Caban, PhD, Program Director for Cancer Control Research, Cancer Control Applications Branch, NCI, DCPC, Blair Bldg Rm 4A01, Bethesda, MD 20892, phone 301/427-8735.

RFPs Available

Requests for proposals described here pertain to contracts planned for award by the National Cancer Institute unless otherwise noted. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs, citing the RFP number, to the individual named, the Blair building room number shown, National Cancer Institute, NIH, Bethesda MD 20892. Proposals may be hand delivered to the Blair building, 8300 Colesville Rd., Silver Spring MD, but the U.S. Postal Service will not deliver there. RFP announcements from other agencies will include the complete mailing address at the end of each.

RFP NCI-CO-74107-40

Title: Cancer prevention awareness: the black college as a resource

Deadline: Approximately Nov. 10

This project is to develop and implement effective diffusion strategies for the dissemination of cancer information to the black population. The offeror must be a historically black college or univesity, defined as an institution of post secondary education that was originally founded for the purpose of providing educational opportunities for black Americans, and which continues to provide post secondary educational opportunitys for black Americans by enrolling as a majority of its students black Americans.

Contract specialist: Teresa Baughman
RCB Blair Bldg Rm 314
301/427-8877

RFP NCI-CM-87224-30

Title: Preclinical pharmacology investigations of anti-AIDS agents

Deadline: Oct. 13

The deadline for receipt of proposals has been changed to Oct. 13 from that listed in two previous announcements (published in **The Cancer Letter** May 29 and Aug. 21).

RFP NCI-CM-87246-11

Title: Prescreening of compounds as potential radiosensitizers and/or radioprotectors

Deadline:

The Radiation Research Branch of NCI's Div. of Cancer Treatment requires the development of a prescreen (series of in vitro tests) to select compounds for screening as potential radiosensitizers. These tests should measure the physical characteristics, i.e., solubility, partition coefficient, electron affinity, etc., as well as specific metabolic endpoints, i.e., binding or inactivation at the molecular levels, cellular oxygen consumption, cellular toxicity, thiols, DNA synthesis, enzyme systems, electron transfer pathways drug inactivation, etc., that may be useful as indicators that the compound is worth evaluating as a potential radiosensitizer.

It is anticipated that eight to 10 tests will constitute the prescreen. The prescreen is expected to remain constant over the length of the contract for the prime objective of the contract is to evaluate the effectiveness of the prescreen. This will be accomplished by sending the compounds selected by the prescreen for further testing as radiosensitizers.

The successful offeror would then utilize the developed prescreen to evaluate 300 compounds each month during the lifetime of the contract.

Note: Cell survival or tumor response assays are not being solicited.

Since the tests will be in vitro, it is expected that the offeror will have these procedures (tests) on line at the time of contract award. All compounds to be tested will be supplied by NCI. The results are to be formated in tabular form with a remarks column indicating the contractor's recommendation for evaluation of radiosensitizing activity. If the recommendation is made for no further testing, the primary reason for this recommendation should be so stated.

It is anticipated that a cost reimbursement incrementally funded type contract will be awarded for three years, beginning June 30, 1988. All responsible sources may submit proposals which shall be considered.

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NCI CONTRACT AWARDS

Title: Case control study, residential radon exposure
Contractor: Survey Research Associates, $411,564

The Cancer Letter _Editor Jerry D. Boyd Associate Editor Patricia Williams

Published forty-eight times a year by The Cancer Letter, Inc., P.O. Box 2370, Reston, Virginia 22090. Also publisher of The Clinical Cancer Letter.