DRS 9/12/83

THE CANCER LETTER

Vol. 9 No. 34
Sept. 9, 1983


Subscription $125 year North America
$150 year elsewhere

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## PROPOSED DRG REGULATIONS WOULD LIMIT EXEMPTIONS TO FOX CHASE, M.D. ANDERSON; IN EFFECT OCT. 1

The Dept. of Health & Human Services published the proposed regulations for Medicare prospective payment (reimbursement by Diagnosis Related Group) last week, proposals which were interpreted by some as a direct threat to clinical cancer research. HHS interpreted so narrowly language in the legislation which would make special provisions for institutions involved with cancer treatment and research that only two cancer centers—M.D. Anderson and Fox Chase—would fall into that category.

*(Continued to page 2)*

*In Brief*

### NCAB COMMITTEE RECOMMENDS JOINT NCI/VENDOR PDQ PROMOTION; FRANK SCHABEL DIES IN VIENNA

NATIONAL CANCER Advisory Board's Committee on Cancer Control & the Community agreed last week to one of three options proposed by NCI staff on how to promote the PDQ information service. The committee recommended that NCI promote the data base to physicians while vendors (various information utility companies) promote their individual services utilizing PDQ, also to physicians. NCI would continue to promote availability of cancer information to the public through the Cancer Information Service, without direct reference to PDQ. The committee asked that NCI remove the association membership rosters which have been included in PDQ; some committee members felt including those lists would constitute an incomplete and inappropriate referral service. The full Board will act on the committee recommendation at its Oct. 3-5 meeting. Director Vincent DeVita said he would go along with the decision on the extent of promotion, but after arguing in favor of keeping the association membership rosters in the system, said only that he would "take under advisement" the recommendation to drop them. . . . **FRANK SCHABEL**, one of the country's leading researchers in cancer chemotherapy and former director of chemotherapy research at Southern Research Institute, died last week in Vienna of an apparent heart attack. He was 65. Schabel was preparing to make a presentation at the 13th International Congress of Chemotherapy. . . . **HENRY KAPLAN**, director of the Radiology & Cancer Research Laboratory at Stanford, will deliver the Univ. of Wisconsin Medical School's Karl Beyer Professorship Lecture on "Potential of Monoclonal Antibodies in Cancer" Sept. 23. . . . **RISING INCIDENCE** of cancer in Colorado will be the subject of a special conference for health professionals Sept. 23 at the AMC Cancer Research Center in Lakewood. Experts on skin, breast, colon and lung cancer will present data on the increases and discuss what can be done now. For registration, contact Dr. Jean Hager, 303-233-6501.

## DOLE, AACI, ACCC WILL PRESS HCFA TO BROADEN DRG CANCER EXEMPTIONS

*(Continued from page 1)*

Other institutuions which might qualify for special consideration are located in states which are excluded for now in the new system because they have their own prospective payment systems in operation—Maryland, Massachusetts, New Jersey and New York.

Thus, HHS ignored appeals from the National Cancer Advisory Board, the Assn. of Community Cancer Centers, the Assn. of American Cancer Institutes, and members of Congress to interpret broadly legislative language pertaining to cancer.

Here's how the proposed regulations define cancer hospitals which would qualify for exclusion:

1. "The hospital must have been recognized by the National Cancer Institute as a comprehensive cancer center or clinical cancer research center as of April 20, 1983.

2. "The hospital must demonstrate that the entire facility is organized primarily for treatment of and research on cancer.

3. "Eighty percent or more of the hospital's total discharges must be classified in those DRGs reflecting the condition of cancer as the principal diagnosis."

The first requirement was included in the NCAB recommendation, except that it did not include community hospitals as requested by NCAB. The second eliminates all except the few free standing centers such as Memorial Sloan-Kettering, Roswell Park, M.D. Anderson and Fox Chase. And the third very nearly eliminated M.D. Anderson, where many patients originally admitted for cancer diagnosis are discharged with other conditions as the principal disease.

The publication of the regulations, which appeared in the *Federal Register* Sept. 1, included a narrative which, oddly enough, makes the case for less narrow interpretation of the congressional mandate:

"Congress specifically mentioned hospitals extensively engaged in cancer treatment and research as a class of hospitals for which some exception might be provided. It is clear that the concern was limited to a few hospitals that are primarily devoted to cancer treatment and research. We could not identify hospitals engaged extensively in cancer treatment based on Medicare records because we do not approve hospitals based on the particular types of cases they treat.

"We are able, however, to identify certain characteristics which need to exist in a hospital setting for it to fit the category described in the law. First, the primary mission of the hospital must be restricted to cancer care. Second, most of the cases treated by the hospital must be cancer cases, i.e., involvement must be entensive. Third, the hospital must have a substantial commitment to research on cancer.

"Hospitals meeting the above criteria will be given an opportunity, before their first cost reporting period begins under the prospective payment system, to opt for reimbursement on a reasonable cost basis subject to the target rate ceiling. If this option is chosen, they will have an additional option of converting to the prospective payment system at a future date. No further options will be allowed.

"A number of hospitals have over the course of time devoted a major share of their attention to cancer treatment and research. These facilities, which play a significant role in the development of cancer treatment, represent an existing concentration of resources in the area of cancer care.

"We believe Congress was concerned that the prospective payment system might produce an unintended disincentive for current programs if those institutions involved extensively in treatment of and research on cancer were found to be legitimately more costly than typical short term general hospitals. Since the standardized amounts are based on expenditures in short term general hospitals, a hospital could, under the circumstances, be encouraged to reduce its commitment to cancer treatment in order to operate within the prospective rate. Such a diminution of existing cancer programs would be an unintended negative consequence.

"Additionally, we believe it is desirable to avoid the opposite effect. That is, we do not think it is appropriate for the system to become the chief determinant of whether existing resources will be shifted among broad classes of illness. We recognize the power of the prospective payment system to create incentives for particular actions and realize that hospitals might be encouraged to create duplicative programs in the system provided financial incentives.

"In order to assure that cancer treatment and research are maintained while avoiding incentives for artificial expansion, we believe it is appropriate to focus our policy on current programs which might be limited or curtailed. This is, we think, consistent with the evident desire of Congress to afford some level of protection to hospitals whose involvement in cancer treatment and research over the years has been extensive. Therefore, we are restricting the special provision for cancer centers to those hospitals whose programs were recognized as of April 20, 1983."

At a press conference last week called by HHS to brief reporters on the regulations, Carolyne Davis, administrator of the Health Care Financing Administration, said that it "is clear Congress intended that the special provision for cancer be limited to only a few major centers."

The language in the Tax Equity and Fiscal Responsibility Act of 1982, on the face of it, cannot be so interpreted. It says the HHS secretary may make

exceptions and adjustments for "hospitals involved extensively in treatment for, and research on cancer." A broad interpretation could include many community hospitals; even a narrow interpretation should include all of the 20 comprehensive cancer centers, and the major clinical centers such as those at the Univ. of Arizona, City of Hope, Univ. of California at San Diego, Bowman Gray, Roger Williams, Univ. of Texas at Galveston, Univ. of Vermont, Medical College of Virginia, and others.

The proposed regulations exempt for now pediatric institutions, so St. Jude and the various childrens hospitals will not be affected.

Davis' interpretation probably was based on a communication she reportedly received from Congressman Jake Pickle (D.-Texas), author of the TEFRA provision for cancer. Pickle is alleged to have said he intended to include only the comprehensive cancer centers.

Sen. Robert Dole (R.-Kansas), chairman of the Finance Committee which has primary responsibility in the Senate for Medicare legislation, had another interpretation, however. Responding to information supplied by Keith Hornberger, associate executive director of St. Francis Hospital in Topeka, Dole wrote to HHS Secretary Margaret Heckler on Aug. 8, three weeks before the proposed regulations were published, stating:

"Congress inserted this language with the intent that community hospitals that are involved in nationally recognized cancer research and treatment be considered for adjustments, also. Failure to recognize community hosptials in the adjustments process means they will be forced to discontinue their efforts with experimental cancer patients. The eventual result will be cancer research in this country centered in a few large institutions, to which relatively few cancer patients have reasonable access. In addition, the recent progress in cancer treatment is likely to slow noticeably with a regional concentration such as this."

Dole continued, "Community hospitals are crucial to the continued achievements of cancer research and treatment in this country. The access they provide to cancer patients living in all parts of the country cannot be replaced, and surely must not be eliminated."

A spokesman for Dole told ***The Cancer Letter*** last week that the senator had not yet received a response in writing from Heckler but that he was confident "something can be worked out with the department in the final regulations."

**John Durant, president of Fox Chase** Cancer Center and also current AACI president, said that "HHS has managed to follow the letter of congressional intent but not its spirit. I can't believe that Congress intended to provide only for two institutions. Although we (Fox Chase) may have fit the criteria for exemption, it was accidental. We had nothing to do with establishing the criteria. And it certainly was not the intent of Congress. Congress doesn't pass special legislation only for two institutions."

Durant said AACI will put out a special mailing to members urging them to send their comments to HCFA.

William Dugan, current ACCC president, expressed discouragement over the proposals. "We spent a great deal of time and effort, from all around the country, to help HCFA understand our problems, and then they stab us in the back," Dugan said. "It doesn't make sense. There is no question in my mind that Sen. Dole clearly understood what the issues were, and he expressed them clearly in his letter. Then they turn around and do something like this. It's downright discouraging."

Dugan said that if the proposals are not substantially modified, "we will have no other choice except to go back to Congress and get new legislation." He encouraged ACCC members and anyone else affected by the legislation to send in their comments.

Gale Katterhagen, member of the NCAB and chairman of its Committee on Cancer Control & the Community which wrote the Board's appeal to HHS, said, "I'm really dismayed and discouraged that HCFA gave such a narrow interpretation to the law. This could be a serious blow to the clinical research component of NCI. It excludes 95 percent of the institutions trying to improve cancer treatment. It excludes most comprehensive centers, all specialized centers, all community centers. It's a crying shame. We are making good steady advances in the war on cancer, but this is a significant setback."

Katterhagen said he was concerned about how the proposals would be viewed by hospitals participating in the Community Clinical Oncology Program. Some administrators may feel the additional financial burdens are too much and drop out of the program, he said.

**Katterhagen's concerns were well founded. One CCOP resigned from the program last week.**

Southwind CCOP, with Deaconess Hospital of Evansville, Ind., as the headquarters institution, informed NCI that it was withdrawing. Deaconess Administrator David Johnson, who as ACCC president last year played a major role in helping NCI develop CCOP guidelines, said the severe cut made in the budget by the review committee and the impending DRG restrictions were the major factors in the decision to drop out.

Southwind had requested a budget of $90,000, but the reviewers slashed that to $34,838. Johnson said negotiations with NCI had resulted in increasing the amount to $38,000, "not nearly enough" to meet CCOP expenses of the three hospital consortium.

"They left only enough money for a minor stipend to the PI (Jack Williams) and for one data manager," Johnson said. "Even at $90,000, we were going to have to support a big part of the program."

Two other CCOPs are reportedly considering dropping out, and there may be more as the full impact of the DRG regulations is felt, if they are not modified.

CCOP is one of NCI's highest priority programs, probably the major new initiative since Vincent DeVita became director. DeVita has gone far out on the limb with Congress and the NCAB over the program, but so far, he does not feel that the DRG regulations threaten it.

"There's a long line waiting to pick up any that are turned in," DeVita commented to *The Cancer Letter*. "I don't think there will be many that are."

DeVita said he has had conversations with HCFA staff and feels they are concerned about the impact on cancer treatment and research. "Their mood is not one of 'to heck with cancer,'" he said. "We need more data, to determine just what the impact will be." He said NCI staff members are in the process of gathering that information.

The regulations as proposed will go into effect Oct. 1, but are subject to change. HCFA will recieve comments up to 45 days after the Sept. 1 publication. They should be sent to HCFA, HHS, Attn: BERC-263-IFC, Box 26676, Baltimore, Md. 21207.

## RFAs ISSUED BY NCI

The following Requests for Applications have been issued by NCI:

**RFA NIH NCI-DCCP-CPCB-83-13**

TITLE: New Natural and Synthetic Inhibitors of Carcinogenesis

APPLICATION RECEIPT DATE: Nov. 15

The Div. of Cancer Cause & Prevention of NCI invites grant applications from interested investigators for studies on new natural and synthetic inhibitors of carcinogenesis. The proposed studies would seek, as their major objectives, to determine the extent to which inhibitors of carcinogenesis occur naturally, as in foods consumed by man, the role and potential of these substances as cancer preventive agents, their mechanism of action, and their pharmacokinetic properties.

Strategies for cancer prevention involving reduction or elimination of human exposure to environmental carcinogens may not always be possible. Significant portions of the human cancer burden may be due to endogenous carcinogens, cocarcinogens, and promotrs. Inhibition of the development of cancer by administration of chemical, biochemical, and biological compounds, which directly and or indirectly inhibit the cancer producing effects of neoplastic and promoting substances, may offer an alternate approach to cancer prevention.

Naturally occurring substances are one of the most promising sources of these inhibitors of carcinogenesis, particularly those which are present in foods consumed by man. Epidemiologic studies have implicated diet and nutrition as important factors in the occurrence of human cancer, with both positive and negative correlations indicated for incidence or mortality at many sites with consumption of particular nutrients or food items. High intakes of legumes and cereals such as corn, rice and beans have been associated with reduced risk for breast, colon and prostatic cancers, for example, and an increased consumption of cruciferous vegetables such as cabbage, broccoli, Brussels sprouts and turnips has been associated with decreased cancer frequencies for colon, rectum and bladder.

Experimental studies in several animal models have demonstrated in direct feeding studies that certain foods or crude food components provide significant protection against chemically induced or radiation induced tumorigenesis. Examples include the cruciferous vegetables, celery, orange oil, beverage sources such as coffee and cocoa beans, and edible legumes such as soybeans or soybean concentrates. Diverse types of chemical compounds present in these foods have also been shown to inhibit the neoplastic process, including phenols, coumarins, isothiocyanates, flavonoids, and indoles. Topically applied onion and garlic ols, too, appear to act as antipromoting agents in two stage mouse skin tumorigenesis.

In in vitro studies, a large number of fruits and vegetables have been shown to contain antimutagenic factorswith activity against several mutagens and carcinogens. Some naturally occurring plant phenols have been shown to inhibit the mutagenicity and cytotoxicity of the only known ultimate carcinogenic metabolite of the polycyclic aromatic hydrocarbon benzo(a)pyrene, in bacterial and mammalian cell assays; and naturally occurring tetrapyrroles, both porphyrins and open chain types, have also been shown to inhibit mutagenesis induced by certain classes of carcinogens.

All of these laboratory and epidemiologic results suggest the possible importance to human cancer prevention of naturally occurring inhibitors of carcinogenesis, particularly those occurring as constituents of the human diet. The purpose of this RFA is to encourage aditional research on these substances since their extent of occurrence, their role and potential as cancer preventive agents, and how their protective effects might be enhanced are little known at the present time.

However, it is not the intent of this RFA to stimulate studies on retinoids (including natural vitamin A), vitamins C and E, or selenium; applications dealing with these agents will be considered nonresponsive. Areas for emphasis (A,B,C,D) are shown below. All applications must respond to area A and at least one of the other areas to be considered responsive to this RFA.

A. Identification of new naturally occurring inhibitors with special attention to appropriate methods of isolation of specific constituents or chemical forms. It is expected that foods consumed by man will constitute a primary source for these efforts. The selected methods of isolation of specific constituents or chemicals from natural products or food materials should be the same as, or similar to, that of the natural food intake of man. Drastic methods of isolation should be avoided wherever possible, and where employed, should be specifically and carefully designed for the specific step(s) necessary. Isolation, purification, and identification procedures which are developed for these inhibitors should represent quantitative, reproducible, analytical methodologies which will permit analyses for their precise content in foods, so that a data base can be established for such food derived anticarcinogenic substances.

B. Thorough studies on mechanisms of action of newly identified inhitors and their pharmacokinetics. Studies on mechanisms of action are a most important part of the proposed efforts which are regarded not simply as a wide range screening of foods or other natural products for inhibitors of carcinogenesis, but as integrated studies which will not only use the most advanced knowledge, techniques, and instrumentation of modern natural product chemistry for isolation, purification, and identification of inhibitors, but will also seek to determine the biochemical and biological bases for the inhibitions which are found. Very little is known about the absorption, distribution, metabolism and excretion of natural inhibitors of carcinogenesis; studies on their pharmacokinetics will importantly complement studies on their mechanics of action.

C. Improvement in current systems and development of new systems for identifying and studying naturally occurring inhibitors. A critical needs exists for improvement of present models, and for development of new models, for identifying new naturally occurring inhibitors of carcinogenesis. This need exists for both in vitro and in vivo systems, and for both short term reliable assay systems and systems for long term studies. Development of shorter term assays for antipromotion agents or anticarcinogenic agents active during the post initiation phases of the neoplastic process is particularly needed.

D. Determination of the range of conditions under which efficacy of natural inhibitors is demonstrable. These investigations should include dose response studies, species in which inhibition can be demonstrated, the range of carcinogens or spontaneous tumors against which activity exists, the antipromoting activity of the natural inhibitor or its activity during the post initiation period, the anti-initiation capacity of the agent, the precise time relationships between administration of inhibitor and carcinogen necessary for inhibition of tumorigenesis, and potential additive, synergistic or potentiating properties which the inhibitor may have in conjunction with other naturally occurring constituents of the diet.

Applications will also be accepted in which research is proposed on new synthetic inhibitors of carcinogenesis. However, such studies must fall into the areas of research given above, and substantial justification for performing the studies must be given. Analogues of known natural inhibitors of carcinogenesis synthesized as part of structure activity investigations are one example of synthetic compounds acceptable for study. Such studies can be considered further attempts at defining mechanism of action and pharmacokinetic properties with the aim of optimizing efficacy, decreasing toxicity, and altering distribution, disposition, and bioavailability.

The total project period for applications submitted in response to the present RFA should not exceed four years. The intent is to fund multiple projects, with total costs amounting to approximately $1 million for the first year. This funding level is dependent on the receipt of a sufficient number of applications of high scientific merit. Although this program is provided for in the financial plans of NCI, the award of grants pursuant to this RFA is also contingent upon the availability of funds for this purpose.

Applications must be submitted on form PHS-398, the application form for research project grants. Application kits are available at most institutional business offices, or may be obtained from the Div. of Research Grants, NIH. The words "RFA, NIH-NCI-DCCP-CPCB-83-13, Natural and Synthetic Inhibitors of carcinogenesis" should be typed in section 2 on the face page of the grant application form. The completed original application and six copies should be sent or delivered to Div. of Research Grants, NIH, Westwood Bldg. Rm. 240, Bethesda, Md. 20205.

Inquiries may be directed to Dr. Carl Smith, Chemical & Physical Carcinogenesis Branch, DCCP, NCI, Landow Bldg. Rm. 8C37, Bethesda, Md. 20205, telephone 301-496-4141.

**RFA NIH-NCI-DCT-CTEP-83-11**

TITLE: Exploratory Grant (P20) to Support the Planning and Development of Research Programs in Surgical Oncology

APPLICATION RECEIPT DATE: Nov. 15

NCI's Div. of Cancer Treatment desires to expand support of surgical oncology research. This announcement solicits applications for exploratory grants (P20s), to support the planning and development of a research program in surgical oncology and contains specific instructions for P20 applications. A separate program announcement invites applications for individual research project (R01) and program project (P01) grants on an ongoing basis.

The treatment of cancer has evolved as a multidisciplinary effort involving (but not limited to) the disciplines of medical, pediatric, surgical and radiation oncology. The disciplines of medical, pediatric and radiation oncology have developed strong programs in clinical investigations but academic development in surgical oncology has not kept pace. For most cancers surgery is the keystone of primary treatment, which is the setting for advances in multidisciplinary therapy. Such advances are an important long range objective of DCT. The attainment of this goal requires substantial strengthening of academic programs in surgical oncology.

Purpose of this grant is to support the planning and development of a research program in surgical oncology. Examples of proposals that NCI considers for support include (but are not limited to):

—Planning the development of a research program in surgical oncology within the context of available staff and resources.

—Coordination of an institution's staff and resources for the purpose of preparing and submitting a large and complex grant application in surgical oncology (for example, preparation of a program project grant application).

—Assessment of an institution's needs in both personnel and material reosurces for the creation of an effective research program in surgical oncology. This might include feasibility studies in

—Planning the development of a research program in surgical oncology within the context of available staff and resources.

—Coordination of an institution's staff and resources for the purpose of preparing and submitting a large and complex grant application in surgical oncology (for example, preparation of a program project grant application).

—Assessment of an institution's needs in both personnel and material reosurces for the creation of an effective research program in surgical oncology. This might include feasibility studies in which the applicant would determine the potential for developing such a program and the validity of various approaches for implementing it.

The proposal should contain information on the following points:

A. Specific objectives of the planning effort for surgical oncology research programs at the

principal investigator's institution.

B. Organization of the staff, facilities, and relevant existing programs in oncology and related disciplines at the institution.

C. Evidence of institutional commitment to a surgical oncology research program.

D. Specific information about what will be included in the planning effort. Activities whose major goals are training and research are not to be included.

E. Interaction of surgical oncology activities with other units or disciplines within the institution.

It is important to note that the award of an exploratory grant does not imply a commitment by NCI to future funding of any program planned and developed with the support of such a grant. Separate applications must be submitted for such projects which are then reviewed on the basis of merit.

Total project period for applications submitted in response to the present RFA should not exceed three years. Although there is no specific limitation on the amount of a grant request, NCI program staff intends to make approximately five to 10 awards with total costs amounting to approximately $500,000 the first year. This funding level is dependent on the receipt of a sufficient number of meritorious applications. The number of grants funded may be increased depending on the availability of resources.

Allowable direct costs may include salaries; supplies and pilot activities related to the planning effort; and payment of consultation and technical assistance needed for feasibility surveys and identification of special problems and alternatives. Consultant fees should not be paid to an employee of the U.S. government. The applicant must include the following information when applying for consultant services in an exploratory grant.

a. Evidence that the services to be provided are essential and cannot be provided by persons receiving salary support or otherwise compensated for their services under the grant.

b. Evidence that a selection process has been or will be employed to secure the most qualified consultant available, considering the nature and extent of services required.

c. Evidence that the proposed charges are appropriate, considering the qualifications of the consultant and normal charges for this service.

It should be emphasized that the applicant must not enter into a binding agreement with a consultant for expenditure of these grant funds prior to an award.

Other related costs may be included. Costs of alteration and renovation are not allowed.

Applications must be submitted on form PHS 398 (Rev. 5/82). The title "RFA, NIH-NCI-DCT-CTEP-83-11, The Planning and Development of Research Programs in Surgical Oncology" should be typed in section 2 of the first page of the application. The completed original applilcation and four copies of the application must be sent or delivered to DRG, address shown on first RFA above.

Two copies of the application should be sent to Referral Officer, Grants Administration Branch, Div. of Extramural Activities, NCI, 2115 E. Jefferson St., Rm. 401, Rockville, Md. 20852. A copy of the covering letter should also be sent to, and inquries directed to, Ernest V. DeMoss, MD MPH, Head, Surgery Section, Clinical Investigations Branch, DCT, NCI, Landow Bldg. Rm. 4B04, Bethesda, Md. 20205, phone 301-496-4844.

RFA NIH-NCI-DRCCA-OD-83-7

TITLE: Longitudinal Evaluation of School-Based Smoking Prevention Programs

APPLICATION RECEIPT DATE: Dec. 1
LETTER OF INTENT RECEIPT DATE: Oct. 15

The Smoking, Tobacco & Cancer Program (STCP), NCI, is interested in supporting studies which a) develop and evaluate school based interventions to prevent the onset of habitual cigarette smoking, and provide for the long term followup of the study cohorts and their controls; or, b) provide for the long term followup of study cohorts and their controls who have been a part of previous school based programs that have been recognized as state of the art interventions in smoking prevention.

The proposed studies should aid in determining the longterm effect that school based smoking prevention programs have on the rates of adoption of habitual cigarette smoking among adolescents.

Recent Surgeon General's reports have identified cigarette smoking as the single most important environmental fctor contributing to premature death. Cigarette smoking is the major single cause of cancer mortality in the U.S., contributing an estimated 30 percent to all cancer deaths. The most desirable approach to reducing tobacco related cancer is to delay, reduce, or prevent the onset of habitual smoking behavior. Since the adolescent years are those in which the greatest risk for adoption of the smoking habit exists, it is also during these years, and those immediately preceding it, that the greatest opportunity for delay, reduction, or prevention of onset exists. Efforts to intervene in the smoking behavior of adolescents may be best served through school based programs because more youth may be reached through this institution than any other and because schools provide an excellent strucure for careful measurement of the effects of such programs.

Recent studies have demonstrated at least short term reductions in cigarette use as a result of school based interventions. Based on sound theoretical grounds, these studies have employed a wide array of approaches (e.g., teacher vs. peer led programs, films and videotapes, life and social skills training, broad health promotion activities, family involvement) and methodologies (e.g., thiocyanate measurement for self report validation, analysis of distinct levels of smoking, true random designs with schools as units of analysis). Published research, as well as research in progress, leave remaining a number of important gaps in the knowledge base necessary to implement effective interventions. It is essential to verify the long term impact of such school based interventions before resources are devoted to the significant problem of assuring that such interventions are disseminated to and used by school systems throughout the nation.

Purpose of this RFA is to solicit applications from qualified investigators interested in developing school based smoking intervention programs (or following up already existing ones) and determining the longterm effectiveness of these programs on the delay, reduction, or prevention of habitual cigarette smoking among adolescents.

Focus must be on longitudinal intervention trials of school based programs. It is anticipated, in keeping with the goals of the NCI Cancer Control Program, that studies funded under this RFA will be phase III (i.e., controlled studies of cancer control interventions in sizeable groups which may not be representative of the larger population) and phase IV (i.e., interventions designed and carried out with a large, distinct and well characterized population or a sizeable sample of the population in such a way that results obtained are representtative of results in large target populations). Where justified and necessary, however, highly controlled substudies which focus on basic

processes involved in cigarette use may be embedded in the intervention studies. These research questions should not become the overrriding interest of the study, but rather, be integrated as complementary adjuncts to the interventions.

The studies sought are of two broad types:

A. New studies of promising school based prevention programs (focused on youth at any point or set of points from kindergarten through 12th grade) which incorporate longitudinal followup (preferably into young adulthood, up to age 24).

B. Longitudinal followup of existing cohorts of youth who have been part of a well designed existing intervention program but have been subjected only to short term evaluation, and whose size and composition justify generalizable conclusions.

Prospective investigators should note (1) that the outcome measure of these studies should be incidence of smoking behavior, not cancer incidence; and (2) that the desired overall outcome of studies eventually supported through this RFA are interventions that are a) cost beneficial; b) cost effective; c) durable in their effects; d) generalizable; and e) readily adoptable and affordable by those schools desiring to do so.

It is recognized that experimentation in school settings with long term followup is a difficult and complex task. Considering this and the current state of the art in school based prevention programs, as well as the aims of this RFA, studies should consider and address, where appropriate, the following research questions and issues (as well as numerous others not listed):

- Can school based intervention programs produce long term reductions in smoking onset? And, is the population and/or technique chosen for this study sufficiently stable to permit such long term followup?
- Is the research design and data analysis plan rigorous enough to provide valid, reliable data yet flexible enough to accommodate field setting conditions?
- Are there a sufficient number of classrooms/-schools to insure that any observed effects are not classroom/school specific?
- Is there sufficient justification (i.e., validity, reliability data) for the selection of program materials to be utilized or developed?
- Is the process evaluation design able to monitor the implementation of key program components, identify which are most responsible for any program impact, and determine which are best/least well received by the program participants?
- What type of self report validation techniques are appropriate for the interventions planned? If none, what arguments support this position?
- Is it possible to identify and design appropriate interventions for youth are at particularly high risk for habitual cigarette smoking?
- What specific techniques are needed for interventions and followup studies of youth who are non-middle class, minority, highly mobile or school dropouts? How will sociocultural differences in the study population affect the study design?
- Is there a role for the family (e.g., parents, siblings) or other support groups in school based smoking intervention programs? If so, how could these groups be integrated into such efforts?
- How do environmental factors (e.g., school climate, community attitudes) interact with program components and affect impact of the interventions?
- Will these interventions be more effective if they are designed as specific smoking education approaches or embedded within broader health education/behavior approaches? Which type of approach are schools more likely to utilize after the research has been completed?
- How useful are booster sessions in achieving long term effects? How often are they needed? What should their focus be?
- What consideration must be given to the multiple domains of adolescent health and social behavior (e.g., psychological health, problem behaviors other than cigarette smoking, personal adjustment factors) in the design, content and material development of the interventions?
- Can effective school based prevention programs be sufficiently standardized or packaged so that they can be maintained and implemented by school personnel in the absence of continuing external funding sources?
- What is the optimum curriculum time needed for an intervention to have a positive impact? What ages/grade levels are most appropriate for intervention?

Although total project period for applications submitted should not exceed five years, it is anticipated that up to 10 years of support may be necessary to carry through some longitudinal designs (e.g., following youth who participate in an intervention at age 12 through age 22). Renewal applications for such studies will be required at three to five year intervals after the initial period of support. Intent is to fund up to five projects, with total costs for all projects amounting to approximately $1.5 million for the first year.

Prospective applicants are asked to submit a one page letter of intent which includes a very brief synopsis of proposed areas of research and identification of any other participating institutions. This letter of intent should be addressed to Dr. Thomas Glynn, Program Director for Smoking Research, DRCCA, NCI, Blair Bldg. Rm. 101, Bethesda, Md. 20205, phone 301-427-8735. Phone inquiries are welcome any time prior to application.

Applications must be submitted on Form PHS 398. The words "Proposal in Response to RFA NIH-NCI-DRCCA-OD-83-7, Longitudinal Evaluation of School Based Smoking Prevention Programs" must be typed in bold letters in space number 2 on the face page of the application.

The completed original application and six copies should be sent or delivered to DRG, address on first RFA above.

## AMA SCHEDULES MEETING ON PROs, PROSPECTIVE PAYMENT SYSTEMS

The American Medical Assn. has scheduled a conference on peer review organizations and the prospective payment system for hospitals for Sept. 19-20 at the Washington D.C. Marriott Hotel. Carolyne Davis, administrator of the Health Care Financing Administration, and Sen. David Durenberger (R.-Minn.) will be speakers. Sessions will be held on prospective payment system legislation and regulations; policy implications for physicians and hospitals; and on the various ramifications of peer review organizations. Contact AMA, 312-751-5109.

## NCI CONTRACT AWARDS

TITLE: Support to the Smoking, Tobacco and Cancer Program
CONTRACTOR: Prospect Associates, $537,894.

TITLE: Procurement of fresh cells from monocytes, macrophages and T and B cell lines
CONTRACTOR: Litton Bionetics, $498,723.

TITLE: Primry genetic centers
CONTRACTOR: Good Institute for Cancer Research, Plantation, Fla., $2,876,060.

## RFPs AVAILABLE

Requests for proposal 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. 20205. 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-CM-47651-68**

TITLE: Preparation and purification of viral components
DEADLINE: Oct. 27

The Developmental Therapeutics Program, Div. of Cancer Treatment, NCI, is seeking an organization qualified to provide substantial quantities of human T cell leukemia virus (HTLV).

The contractor shall (1) provide 30 to 40 liters of 1000x concentrated virus per week; (2) furnish quality control data including number of virus particles/ml. (E.M.), reverse transcriptase activity and the level of p24 in each lot of virus; and (3) monitor the cells biweekly for contamination by mycoplasma and other cell lines.

As minimum requirements, the contractor must (1) be located with a 35 mile radius of NIH so that freshly prepared specimens can be delivered to the government project officer's laboratory immediately after harvest; (2) have P2/P3 facilities available for production of HTLV; and (3) provide written evidence of ability to produce human T cell leukemia virus suitable for this project.

It is expected that one award will be made for a 40 month period.

CONTRACT SPECIALIST: Karlene Wakefield
RCB, Blair Bldg. Rm. 212
301-427-8737

**RFP TMD8405**

TITLE: Fractionation of mutagens from municipal sludge and wastewater
DEADLINE: Sept. 23 for requests for applications; Oct. 21 for submission of proposals

EPA is seeking assistance by cooperative agreement of an organization qualified for studies of both the quantitative and qualitative aspects of mutagenic chemicals in municipal wastewater and sludge samples. Recent studies have established the presence of mutagenic compounds in both municipal wastewater and sludge. At present, the nature of the chemicals responsible for this activity is unclear and the extent to which man is actually exposed to these chemicals is not known.

Further, whether these mutagenic compounds can be attributed primarily to industrial discharges or to domestic sewerage has not been established. Consideration should be given to fractionation of chemicals from sludge and wastewater, identification of mutagenic fractions, quantitation of mutagenicity, and chemical characterization of mutagens. Sludge and wastewater samples from streams impacted by industrial discharges should be compared to those where the effluent is primarily domestic in nature.

This project is estimated to be a three year project with a funding level of $75-100,000 per year.

**RFP TMD8407**

TITLE: Carcinogenic, mutagenic and teratogenic risks associated with the land application of municipal sewage sludge
DEADLINE: (Same as above)

EPA is seeking assistance by cooperative agreement of organizations qualified to conduct research concerning the investigations of the translocation of mutagens from sludge into plant tissues, the subsequent and sequestering of these agents in plant tissues and/or plant products, and their possible mutagenic potential to the human population consuming these products.

Previous investigations have shown that municipal sludge and wastewater contain highly mutagenic and potentialy carcinogenic or teratogenic chemicals. In addition, some of these materials are transferred into plants grown on sludge-treated soil. Thus, the possibility exists that these mutagenic (carcinogenic) chemicals may enter the human food chain as a result of the use of sludge as agricultural additive or fertilizer. Ideally, the question might be addressed by exposure of mammalian cells, animals, bacteria (e.g. salmonella) or insects (e.g. drosophila) to grains, grain extracts, vegetables, fruits or other edible products from plants grown on sludge treated soil.

Such studies must, however, specifically address the issue of relative human health hazard associated with crops grown on sludge amended soil versus normal cropland. Consequently, proposals must address how data can be used in arriving at a scientifically defensible estimation of any incremental human risk associated with the disposal of municipal sludge on cropland.

This project is estimated to be a three year project with a funding level of $100-230,000 per year.

These cooperative agreements are to be awarded under the authority of the Safe Drinkng Water Act and the Clean Water Act. Under the provisions of these acts cooperative agreements in the research areas indicated can be awarded only to public or nonprofit private agencies, institutions, organizations and individuals. Profit making institutions should not apply. Individuals and/or institutions interested in competing for these cooperative agreements are invited to submit a written request for an application kit.

D. Mager, Administrative Officer
Toxicology & Microbiology Div.
Health Effects Research Lab,
Environmental Protection Agency
Cincinnati OH 45268
for above 2 RFPs

**The Cancer Letter** _Editor Jerry D. Boyd

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. 