THE CANCER LETTER
RESEARCH EDUCATION CONTROL

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Vol. 5 No. 5

Feb. 2, 1979

MERGER OF CENTERS, CONTROL PROGRAMS AN OPTION, UPTON SAYS; ACS TO FUND NEW PREVENTION CENTERS

NCI Director Arthur Upton—responding to rumors circulating at this week's meeting of the Assn. of American Cancer Centers—told *The Cancer Letter* that merging the Cancer Centers and Cancer Control Programs remains an option he is considering. He emphasized, however, that he still had not reached a decision on an organizational setting for centers and the other programs still housed in the Div. of Cancer Research Resources & Centers—construction, organ sites and training.

Center directors would enthusiastically welcome a merger of the centers and control programs. Most of them feel that the Div. of Cancer

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In Brief

FLOOD GIVES UP CHAIRMANSHIP, WHICH GOES TO NATCHER; KENNEDY HEARINGS FEB. 22-23

DAN FLOOD'S career as chairman of the House HEW Appropriations Subcommittee has ended. Flood, who is on trial for bribery charges, said last week he would not ask committee members to reelect him chairman. The senior Democrat on the subcommittee behind Flood, William Natcher of Mississippi, has indicated he will accept the chairmanship, giving up the D.C. Subcommittee. Flood will remain as a member of the subcommittee, and David Obey (D.-Wisc.) will continue as an increasingly influential member. Natcher is a fiscal conservative but has been generally supportive of the Cancer Program and has a reputation for fairness and integrity. . . . **TED KENNEDY'S** oversight hearings on NCI have been scheduled for Feb. 22 and 23 . . . . **GERALD MURPHY**, director of Roswell Park Memorial Institute, took over this week as president of the Assn. of American Cancer Institutes, relieving Gordon Zubrod, director of the Florida Comprehensive Cancer Center. The new president-elect is Alvin Mauer, medical director of St. Jude Children's Research Hospital. . . . **SYMPOSIUM ON CHILDHOOD** sarcomas of soft tissue and bone put on last week by the Cancer Clinical Investigation Review Committee in Orlando drew a surprisingly strong turnout—more than 200 registrants plus another 50 or more walkins. Several came from Europe and two from Japan. Arvin Glicksman, Rhode Island Hospital, was chairman, with Teresa Vietti, Washington Univ., and Harold Mauer, Medical College of Virginia, as co-chairmen. It could be the last such conference CCIRC will be permitted to support through its chairman's grant, if David Joftes, chief of NCI's Review & Referral Branch, has his way. Joftes told the CCIRC last year that henceforth the conferences it sponsors to update practicing physicians on treatment advances would have to compete with all other NIH conference proposals and make it through Div. of Research Grant peer review. CCIRC members objected loudly, and a number of NCI staff members agree with them. Joftes may be overruled.

MATHIAS, WAXMAN PROMISE SUPPORT FOR INCREASED NCI FY 1980 FUNDS

(Continued from page 1)

Control & Rehabilitation, where all cancer control efforts have been administered since the division was organized five years ago, has not adequately utilized centers as resources for cancer control. A merger of the two programs would most certainly result in more control programs being conducted through or collaborating with centers, the centers staff people feel.

Upton had said last year as his reorganization of NCI was proceeding that the ultimate disposition of the remaining programs in DCRRC could depend on the interests and qualifications of the person he would select to head a new division that would be established to include some or all of them. Upton said this week that he had not yet recruited anyone for that job.

AACI President Gordon Zubrod gave Upton an opportunity to discuss the centers-control issue following Upton's remarks at the association's meeting Monday.

"Centers constitute an enormous resource for the Cancer Program," Zubrod said. "We feel the centers have responsibilities in cancer control, education, clinical investigation, the transfer of high quality care. However, many members are disappointed over the way these resources are being used by NCI. What plans does NCI have to take advantage of these resources?"

"I wish I had a well constituted and defined plan," Upton answered. "Centers do play a leadership role in the Cancer Program. They have a mandated role in outreach. I confess I've been troubled by seemingly insufficient utilization of centers, comprehensive and otherwise, in demonstration and education programs. We've been confused by the meaning of the term cancer control. We must clarify our objectives and determine how centers can best take part in control programs.

"Centers do have a stronger role to play in control activities than we've enabled them to play in the past," Upton said.

LaSalle Leffall Jr., president of the American Cancer Society, told AACI members that the society's board of directors this week would approve a new program for support of five to 10 centers for the study of the cause and prevention of cancer. "I feel this program will be approved," Leffall said. "Some of the cause and prevention centers probably will be located in existing centers. I hope we will fund them for four to five years, at $150,000 to $200,000 a year."

Referring to suggestions that ACS provide some core support to centers to help fill gaps in NCI funding, Leffall said the ACS board felt any amount that might be obtained from the national organization would be too small to make much difference.

"We felt the best help we could give would be to encourage NCI to increase core support. We can try to exert influence on Congress for more money." If that is not successful, Leffall urged the centers to seek increased core support from NCI with the money to come out of cancer control funds. "NCI defined cancer control and can redefine it."

Leffall urged the centers to make use of the new public issues committees being formed by local ACS divisions. State governments are being seen as important new sources for support of cancer control, rehabilitation and research. The local public issues committees can be effective in lobbying efforts with state legislatures, and centers should not hesitate to call on them for help, Leffall said.

Leffall said that some centers staff members, in planning fund raising drives, have been concerned that ACS might feel those efforts would conflict with its own fund raising campaigns. "We are not opposed to fund raising by centers. We know most will have to become involved in fund raising to carry out your mandates. We ask only that, if possible, you avoid any big fund raising program in April, when ACS has traditionally held its drive. If you have a year-around effort going, I know you can't stop it in April, but we ask only that you avoid it if you can."

Leffall also suggested that centers work with ACS local offices in their public education and information programs. "We're not opposed to centers having their own programs, but we ask that you cooperate with us, let ACS help you where it can."

Both Sen. Charles Mathias (R.-Md.) and Congressman Henry Waxman (D.-Calif.) said in separate addresses at the AACI meetings they would support increased funding over the President's 1980 budget for NCI.

"Critics are working to undermine the Cancer Program, but when the chips are down, Congress has always upped the ante," Mathias said. He pointed out that Congress added $60 million over the President's request for NCI in the current fiscal year. "Now we've got to mount another congressional rescue operation. That's nothing new. Most of us realize that battles have to be fought before wars are won."

Congress will be "more tight fisted than ever" as an aftermath of Prop. 13, Mathias said. "People forget that Congress was more tight fisted than the President last year. We cut $10 billion from his budget, with Bill Natcher's help (turning to Congressman William Natcher, who was present at the meeting along with Sen. Richard Schweiker, neither of whom addressed the group. Natcher is the new chairman of the House HEW Appropriations Subcommittee, and Schweiker is the ranking Republican on the same subcommittee in the Senate.)

"But we still found room for essential programs," Mathias continued. "And I include cancer in that."

Waxman, at an earlier session, said that although the new amendments to the Cancer Act will require

NCI to increase emphasis on prevention and work closer with the regulatory agencies, "we can't ignore research on early detection and treatment." He also mentioned development of hospices as a high priority item, along with rehabilitation.

"It would be shortsighted to cut cancer research funds now," Waxman said. "Congress has never failed to increase the budget for cancer research, and I expect we won't fail this year."

FIVE CENTER CORE GRANTS RENEWED

Five cancer centers whose core grants are expiring had the grants renewed by the National Cancer Advisory Board at its January meeting.

The five are Fox Chase Cancer Center (which with the Univ. of Pennsylvania is a comprehensive cancer center); the Northern California Cancer Program; Mid-America Cancer Center (part of the Univ. of Kansas, Kansas City); Univ. of California at Berkeley; and the Univ. of Miami Comprhensive Cancer Center.

ANNUAL REPORT ON CARCINOGENS KEY ELEMENT IN PREVENTION, MAGUIRE SAYS

Congressman Andrew Maguire, in his appearance at the National Cancer Advisory Board meeting (***The Cancer Letter***, Jan. 26), explained in some detail congressional rationale for requiring an annual report on carcinogens which has caused much concern among some, notably Cancer Panel Chairman Benno Schmidt.

The amendment to the Cancer Act mandating the report requires the HEW secretary (who will delegate the task to NCI) to produce a report which will include "substances which are known to be, or may be reasonably anticipated to be, carcinogenic." It is to indicate "to the extent known, the nature and extent of human exposure to such substances, including a summary of effluent, ambient or exposure standards, along with the best possible judgment as to the extent to which such standards reduce human risk."

The report also is to include a summary of requests from other agencies for assistance in research and testing on carcinogenicity.

Schmidt and others feel the report could "open a Pandora's box." He has asked, "Carcinogens known by whom, reasonably anticipated by whom?" There is wide disagreement among scientists about many suspect substances on whether they are carcinogenic, Schmidt has pointed out. Even when science demonstrates that a substance does cause cancer in animals, there is frequently broad disagreement on the potential carcinogenic threat to humans.

Maguire argued:

"If a strategy which places more emphasis on prevention of cancer is to achieve maximum effectiveness, it is not only necessary that there be an effective mechanism for the dissemination. It is also critical that there be some means for centralizing and assessing the best available scientific information on carcinogens. This, of course, is the point of the annual report on carcinogens required in the act. . . .

"The legislative mandate in this report . . . mandates fulfillment of recommendations dating back as far as 1973, when the Ad Hoc Committee on Testing for Environmental Chemical Carcinogens, of which Dr. Upton was a member, unanimously recommended that: 'In accordance with its responsibilities under the National Cancer Act of 1971, the National Cancer Institute should develop a comprehensive national program for the identification of carcinogenic chemical hazards in the environment with a view to their elimination or control. This will require close cooperation with other government agencies, nongovernmental institutions and also industry, and development of a mechanism for continual and prompt interchange of relevant information.'

". . . For a preventive approach to environmental cancer to have any significant success," Maguire continued, "It is first necessary that there be some mechanism for coordinating the multifaceted, disparate programs within the federal government which deal with various pieces of the problem. The coordination must occur at two levels—coordination of research, and coordination of regulation. The National Cancer Institute is not a regulatory body. That does not mean, however, that the institute can be insulated from public health concerns which are the direct responsibility of the regulators. As the report of the National Conference on Health Research Principles, held last October, put it: 'Protecting the public health from diverse environmental exposures requires control options ranging from information and education to regulation at the federal level. For each of these stages, a sound knowledge base is essential if the controls are to be appropriate and effective.'

"While research is the central business of the National Cancer Institute, I'm sure that we can agree that research cannot entirely be research for its own sake. The relatively large funding provided to the National Cancer Program since the early 1970s was a public policy decision—a decision which was intended to have public health outcomes. Nothing in the mandate of this legislation requires that the National Cancer Institute become a regulatory body. It does require, however, that the institute order a proportion of its research priorities in the light of information it receives from the regulatory agencies as well as from the scientific community, and that it participate actively in trying to provide a mechanism for coordinating the research knowledge and articulating the best possible medical and scientific judgments with respect to carcinogens. Such an endeavor is essential for prioritizing our efforts for prevention, and for increasing the coordination between the various agencies involved.

"What about the report itself? Many will object that the report requires going beyond matters of agreed scientific fact. Further, some have feared that

as a result, judgments made within the report will be subject to criticism. That, of course, is absolutely right. But we cannot wait to take actions which have a reasonable prospect of protecting public health until the last shred of scientific evidence is in. Nor can we postpone the task of controlling cancer until we have developed a fundamental understanding of cell processes and the precise mechanisms through which specific carcinogens and co-carcinogens operate. It would have been possible, for example, to prevent many of the asbestos-related cancer had we reduced worker exposure many years ago, even without a basic understanding of why those exposed to asbestos so often develop cancer.

"If agreement or certainty is what is required, what level of agreement is necessary? There are still some scientists who argue that we lack adequate certainty about the relationship between cancer and smoking. But, I wonder how many people in this room would argue that there is inadequate knowledge to make some public policy or public health judgments about smoking. It is always going to be a matter of degree. Obviously it will be necessary for you to establish criteria for inclusion of particular substances in the report, and for making evaluations of the regulatory standards. Criticism and controversy are an unavoidable part of dealing with issues which have public policy consequences.

"I understand that many who regard their role as exclusively one of research may feel uncomfortable in a contest which inherently involves elements of uncertainty. But the report, nevertheless, is an essential part of any coherent effort to create a program of prevention in environmental cancer."

Discussing other amendments to the act, Maguire said:

• Specifying that at least five of the 18 NCAB members must be "knowledgeable in environmental carcinogenesis" (the language of the amendment) and that the regulatory agency heads by ex-officio members "was to ensure that the Board would have within its membership adequate expertise to make sound judgments about research priorities in environmental carcinogenesis, and to ensure that the Board would be sensitive to the concerns of those responsible for regulating carcinogenic substances."

(Some congressional staff members have been quoted as saying the five persons "knowledgeable in environmental carcinogenesis" would have to be "avid environmentalists" and that none of the present Board fits that description. At least three of the Board members are respected, knowledgeable, possibly sometimes controversial in that field—Henry Pitot, Philippe Shubik and Gerald Wogan. Also, Elizabeth Miller, a member of the Cancer Panel and ex-officio member of the Board, is one of the nation's foremost experts in chemical carcinogenesis. Maguire's interpretation of congressional intent indicates those three Board members would be acceptable for three of the five positions.)

• The amendment revising authority for cancer control programs "is to make certain that new information on detection, diagnosis, treatment and prevention of cancer was made widely available" through regional and local networks. "As the committee explained in its report, 'It is expected that this type of organization would help to identify deficiencies in local diagnostic and treatment capabilities and facilitate the continuing education of physicians.' This clearly will assist in providing patients who have cancer with the most effective therapy, and facilitate the identification of at risk populations where preventive measures could be undertaken. And, of course, stress has been placed on the importance of educating the public because it is clear that individuals often can take actions to reduce their risk of cancer—either by changing aspects of their personal lifestyles, or by acting in concert with others to reduce their exposure to occupational or environmental hazards."

Maguire said it is "urgent that we continue to fully support the basic research being done at the institute, even if the fruits of that research are still years, or decades, away. But it is equally important that we take whatever actions we can, now, which can reasonably be expected to contribute more immediately to a long term strategy of prevention.

"Congress and the country have made an immense investment in the National Cancer Institute and its programs. I am glad we have made that commitment. And I intend to work to ensure that we continue that support."

Board Chairman Jonathan Rhoads pointed out that cigarette smoking is an environmental cancer hazard and asked Maguire if Congress is ever going to do anything about it.

"I'm one of the few members who has taken the floor of Congress to talk about the tobacco problem," Maguire said. "Despite the reforms in Congress, there is still logrolling. The tobacco state interests and the other farming interests all take care of each other. All I can say is that it is becoming increasingly clear to the public and to Congress what the pernicious effects of cigarette smoking are."

Shubik said he was "distressed" that Congress has considered the Board to be remiss. "It has not been. The record will show this Board made recommendation after recommendation (regarding greater emphasis on environmental carcinogenesis). . . I'm interested to find Congress responding to suggestions from this Board. Our subcommittee (which Shubik chaired) echoed your suggestions. We found ourselves faced with a general lack of interest in chemical carcinogenesis until relatively recently."

"In Congress?" Maguire asked.

"Yes. . . I welcome the emphasis. I'm a bit bothered by the direction of research being mandated. As time goes on, things become more compli-

cated. We have had a high degree of frustration by the cigarette issue. We found ourselves over a barrel on another committee I chaired (an NCAB subcommittee to develop recommendations to Congress for standards limiting tar and nicotine content). We all agreed that limiting tar and nicotine is a good idea, but no one could suggest what the levels should be. What I wonder is whether we leave ourselves enough leeway. Some of the things we think are terribly important today may not be so important tomorrow. We need to leave room for intellectual discretion.

"I understand your view," Shubik said to Maguire, "living in an area (New Jersey) with undetected occupational carcinogens. It's a horrifying thing. I'm glad you're here, and glad to see the emphasis you are encouraging. I beg you not to overlook the things the Board has done."

Pitot commented that "smoking and excess dietary intake are suspected as accounting for a majority of the environmental causes of cancer. We don't know the mechanisms. I hope your visit and the implications of the amendments allow us to react when we do find something. . . . Many of us feel that industrial exposures are relatively minor aspects of the problem."

Board member Harold Amos, arguing against the carcinogenic substances report, said, "If we are asked to present statements on what is a carcinogen without evidence, who is one to believe? Who will be the arbiter of truth?"

"I would hope that Congress will not put itself in a position of taking a vote, that X or Y is or is not a carcinogen, without the best scientific evidence," Maguire said. "But we can all agree that without the best scientific evidence, it is still possible to set some sort of criteria for determining different categories. . . . I don't see it as an insurmountable problem."

NCI Director Arthur Upton said, "I see the new amendment as calling for more and better information. I don't see any more logical source for this information than the secretary (of HEW and thus NCI). The task is enormous. We will need to reach out to the scientific community for assistance. Mr. Maguire was correct when he said we may feel uncomfortable about it. The scientific community is uncomfortable now about radiation risks. There is controversy, but we have no choice but to roll up our sleeves and go to work."

Maguire said the amendments were "carefully worded" to avoid giving NCI regulatory functions. "We have to somehow link up the best scientific evidence with what is required by the regulatory agencies. . . . It is not my intention that an enormous amount of scientific talent be invested in marginal issues. That would be absurd. We want the regulators to have the best scientific information and evidence about real world problems as they make their decisions.

". . . I hope we agree on one thing, that we need to make it clear to the public that there are relatively few things that cause cancer, that we need to have a more systematic approach in identifying what they are. . . . I'm encouraged by what I've heard around this table. There is a real commitment to a strategy to move ahead on prevention research."

Rhoads said, "The key word in the legislation is 'reasonable,' and 'reasonably expected to be carcinogenic.' That word is sadly lacking in the Delaney amendment."

SIX MORE COMPOUNDS FOUND POSSIBLE HUMAN RISKS BY CLEARINGHOUSE GROUP

The Clearinghouse on Environmental Carcinogens Data Evaluation/Risk Assessment Subgroup agreed with NCI Carcinogenesis Testing Program staff reports that six more compounds were shown to be carcinogenic in animals and the subgroup further added that they were potential risks to humans.

The subgroup agreed that two other compounds were carcinogenic in the animal tests but that one of them posed only a slight risk to humans, if that, and offered no statement on human risk for the other.

The compounds the subgroup said were a threat to humans:

- Michler's Ketone, a dye intermediate. (Intermediates are involved in manufacturing processes and may not show up in the finished products, although sometimes they do and thus could expose consumers. Presumably, they are at least potential occupational hazards.)

Blaine McKusick, representing DuPont, the manufacturer, told the subgroup that the Michler's Ketone used in the bioassay may not have been representative of the technical grade product, although it was obtained from DuPont. The presumption for atypicality was based on negative results in the Ames assay when pure and technical grade Michler's Ketone was used. He suggested the carcinogenic activity in the NCI bioassay was due to an impurity in the compound.

Subgroup Chairman Arnold Brown said he was reluctant to withhold the report, as McKusick asked, since the test material was obtained from DuPont and was found to be carcinogenic. Program Director Richard Griesemer noted that the NCI tested material was already several years old when it was subjected to the Ames test. Brown commented that the poor survival rate of the test animals indicated the maximum tolerated dose may have been exceeded, which could have compromised the study's significance. Nevertheless, he recommended the report be accepted, modified to include McKusick's concerns, and suggested that the compound could be a risk to humans. The recommendation was approved unanimously.

- 4,4-methylenebis (N,N-dimethyl)bensenamine, a dye intermediate. Brown said the compound caused a dose related incidence of follicular cell carcinomas of the thyroid in treated rats and a significant number

of hepatocellular tumors in treated mice. Clearinghouse member Kenneth Wilcox questioned if the incidence of hepatocellular adenomas in the high dose treated male mice was statistically significant; Griesemer said it was only marginal compared with historical controls. The subgroup approved without objection Brown's recommendation that the report be accepted and that the compound should be considered a potential human carcinogen.

• P-nitrosodiphenylamine, a rubber vulcanizer accelerator. Subgroup member Joseph Highland said the compound was carcinogenic in male mice and rats, inducing liver neoplasms in both species. Despite a number of experimental shortcomings, Highland said the study was acceptable and the compound should be considered a potential human carcinogen. There was no objection.

• O-toluidine hydrochloride, a dye intermediate. Wilcox said that the compound was carcinogenic in both sexes of treated rats and mice. He noted an increased incidence of urinary bladder epithelial and spleen capsule mesothelial hyperplasia in both sexes of treated rats and suggested this was worthy of special mention in the report. He said the compound would have to be considered a potential human cancer risk; Highland, the secondary reviewer, agreed, and their motion to that effect was approved unaminously.

• 5-chloro-o-toluidine, a dye intermediate. Highland said that the compound was carcinogenic in both sexes of treated mice and that in rats the evidence suggested a carcinogenic effect but was not conclusive. He suggested it was a potential human carcinogen, and there was no objection to his recommendation the report be accepted as written.

• P-quinone dioxime, a rubber vulcanizer accelerator. Subgroup member Henry Pitot said the compound induced urinary bladder carcinomas in treated female rats. Analysis of the compound showed the presence of impurities, which raised a question regarding the role of the impurities in the carcinogenic response. However, Pitot concluded that it could pose a human risk. Griesemer pointed out there were two bladder tumors and four kidney tumors among treated male rats, which although not statistically significant could be biologically important and lend additional significance to the findings in female rats. Pitot's motion to accept the report was approved without objection.

Nithiazide, an antiprotozoal veterinary medication, was reviewed by Clearinghouse member William Lijinsky. He said the results indicated the compound was carcinogenic in male mice but that the evidence for females was dubious. He concluded it was not carcinogenic in either sex of rats. He said it should be considered to pose, at most, a slight carcinogenic risk to humans. There was no objection to his recommendation to approve the report.

Clearinghouse member Verne Ray, reviewing the report on nitrofen, an agricultural herbicide, agreed with the report that the compound was carcinogenic in both sexes of mice, inducing hepatocellular carcinomas. It was not carcinogenic in Fischer rats. There was no objection to his recommendation that the report be accepted as written, and there was no reference to a potential threat to humans.

Pitot, reviewing the report on p-chloroaniline, a dye and chemical intermediate, agreed with industry representatives who insisted that the diagnoses of treated animals should be reviewed by an independent panel of pathologists. W.H. Butler and Dr. Freedman of ICI America, said there were discrepancies between the findings of NCI pathologists and independent consultant pathologists retained by ICI. He asked for an independent panel to review the diagnoses.

Clearinghouse member Michael Shimkin sent a written review of the bioassay and concluded that it was not possible to agree or disagree with the conclusions of the report until the question regarding diagnoses was resolved. Griesemer said that NCI and ICI pathologists agreed on the diagnosis of fibromas in rats, and that program staff considered the incidence to be biologically significant. Highland remarked that it would be inadvisable to call for an independent pathology review since it could set a precedent for other studies. Pitot's motion calling for an independent review was approved 4-2, with Brown, Pitot, Ray and Wilcox opposed by Highland and Lijinsky.

Compounds determined not to be carcinogenic under conditions of the test were p-phenylenediamine dihydrochloride, 4-nitro-o-phenylenediamine, 2-(chloromethyl)pyridine hydrochloride, 2,5-dithiobiurea, dibutyltin diacetate, fenthion, 2,7-dichlorodibenzo-p-dioxin (DCDD), p,p-ethyl DDD, and coumaphos.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer or Contract Specialist for copies of the RFP, citing the RFP number. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research Contracts Branch which are issuing the RFPs. Address requests to the contract officer or specialist named, NCI Research Contracts Branch, the appropriate section, as follows:
Biology & Diagnosis Section and Viral Oncology & Field Studies Section—Landow Building, Bethesda, Md. 20014; Control & Rehabilitation Section, Carcinogenesis Section, Treatment Section, Office of the Director Section—Blair Building, Silver Spring, Md. 20910.
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

Extension of Deadline:

NCI has extended the deadline for submission of resumes listing qualifications to receive RFP NO1-

CP-95608 (*The Cancer Letter,* Jan 19) from Jan. 26 to Feb. 9. The contract, to be awarded for a three year period, is for screening of chemicals for carcinogenicity.

RFP NCI-CM-97262

Title: *Isolation of antineoplastic compounds from marine vertebrates and invertebrates*
Deadline: *Approximately March 23*

Responding organizations should have capabilities and facilities for (1) the fractionation and isolation of antineoplastic agents from marine organisms and (2) the determination of chemical structures of the antineoplastic agents. The objectives of this project are (1) to prepare by isolation enough of each compound to test for antitumor activity, to identify chemically, and to prove the structure if necessary; (2) to prepare additional quantities, usually a few grams, of those compounds that require more biological testing to determine interest to NCI; and (3) develop isolation procedures suitable for pilot plant scale up if necessary.

NCI will provide the marine materials and in vivo and in vitro tumor bioassays. The facility must have the capacity for storage of several thousand pounds of animal material, preparation of extracts from 50 lb. samples, for performing all types of organic chemistry necessary for isolation of active compounds, and for carrying out organic structure and identification work. A well instrumented analysis laboratory and adequate library must be available.

The principal investigator must be trained in organic natural products chemistry at the PhD level from an accredited school and must have extensive experience in isolating pure compounds from natural products and in organic chemical structure determination. It is anticipated that one contract will be awarded and will require 4 technical man-years of effort per year for a period of three years.

RFP NCI-CM-97259

Title: *Computerized literature surveillance of natural products*
Deadline: *March 23*

Survey the chemical, biological and biomedical literature for natural products or extracts of natural products which may be of interest to the NCI as potential anticancer agents by virtue of their chemical structures or reported biological activities. The project will include both comprehensive surveillance of current literature and limited retrospective searches of past literature on compounds or organisms of special interest to the NCI.

To be considered for such a contract, candidates must show a minimum of two years experience in computerized literature retrieval and must have the capability to conduct searches by chemical structures or substructures, keywords scientific names of organisms, and biological activities. All types of natural products will be searched including those of microbial, higher plant, animal and marine origins.

Contracting Officer for above two RFPs: John Palmieri
Cancer Treatment
301-427-8125

RFP NCI-CM-97267

Title: *Phase III study evaluating total parenteral nutrition as an adjunct to combination chemotherapy in advanced measurable small cell anaplastic carcinoma of the lung*
Deadline: *March 30*

NCI requires organizations with a multidisciplinary team to conduct studies on patients with small cell anaplastic carcinoma of the lung. The objectives of this three year study are to determine whether total parenteral nutrition enhances the efficacy of the chemotherapy in small cell anaplastic carcinoma of the lung; to determine whether total parenteral nutrition ameliorates the toxicities of aggressive combination chemotherapy; and to determine whether total parenteral nutrition alters the pharmacology of the drugs utilized in this study.

A standardized protocol will be developed by the successful contractors and the government project officer. The study will have two treatment arms. The control arm will consist of combination chemotherapy and prophylactic whole brain irradiation, and the test arm will consist of this same regimen plus administration of total parenteral nutrition during the first two cycles of chemotherapy.

Single institutions must accrue 30 patients within the first contract year with microscopically confirmed metastatic measurable small cell anaplastic carcinoma of the lung. With regard to multi-institutional proposals, each institution must accrue 30 patients to the study. It is anticipated that multiple awards will be made for this clinical trial.

In addition to the clinical trial, offerors may also submit proposals for an optional pharmacology study. The specific aim of the pharmacology study will be to determine the impact of total parenteral nutrition upon drug pharmacology. Of those offerors receiving clinical awards, a limited number (possibly only one) will be selected for award of the pharmacology study.

Contracting Officer: Stephen Gane
Cancer Treatment
301-427-8125

RFP NO1-CN-95449-02

Title: *Health effects of asbestos exposure—A community demonstration in Tyler, Texas*
Deadline: *Approximately April 1*

NCI is seeking proposals for the development of a new program to demonstrate and evaluate methods of dealing with an industrial exposure to asbestos by

incorporating management of the problem into the community's ongoing health system. The main elements of the program are the organization of the community plus information and education programs for health professionals, exposed workers, and the public.

The program is to be developed in Tyler, Texas, and facilities in Tyler will be required at the implementation of the proposed program. This RFP is issued as a result of a Sources Sought announcement previously advertised.

Contract Specialist: Jacquelyn Carey
Control & Rehabilitation
301-427-7984

RFP NO1-CN-95445-05

Title: *Pilot study of the patterns of cancer pain care*
Deadline: *Approximately April 1*

As part of the effort to foster the most effective cancer pain management it is necessary to identify and evaluate current pain management practices. The purpose of this procurement is to develop and test a methodology to determine current pain management policies.

This pilot study will address three cancer pain management situations: (1) Pain due to cancer in the pelvic region; (2) Pain due to head and neck cancer, and (3) Pain due to cancer metastici to bone. The emphasis is to be on the development and implementation of a pilot survey to determine current pain management practices. The survey should include institutions representative of the health care delivery system.

The study will be a cross-sectional assessment rather than a prospective study. The offeror must present and justify a study design which addresses the spectrum of pain management. This should include an assessment at the institutional level (hospital, nursing home, clinic) and, if necessary, at the level of private office practitioners. The emphasis is to be on process (what is being done?) rather than outcome (was pain relieved?).

It is anticipated that multiple awards will be made, each not to exceed $100,000 direct cost.

Contract Specialist: Helen McEwan
Control & Rehabilitation
301-427-7984

RFP NCI-CM-97238-18

Title: *Hematology support care*
Deadline: *Approximately March 19*

Serum repository services involving over 30,000 samples and some in vitro assays including leukoagglutination, lymphocytotoxicity, and platelet migration inhibition tests. Because of the nature of the specimens involved, the contractor must be within 35 miles from the NIH so that daily pickups and delivery services for samples are possible. The contractor is also required to provide a computer program for sample retrieval for identification, volume, and localization. In addition, the computer capabilities must provide data verification and updating routines. It is anticipated that the contract will be awarded for three years and should provide for the accomindation of 20,000 additional samples.

Contract Specialist: Helen Lee
Cancer Treatment
301-427-8125

RFP NCI-CM-97240-18

Title: *Clinical data management services*
Deadline: *Approximately April 9*

The Biometric Research Branch, Div. of Cancer Treatment, NCI, is seeking qualified sources for the design, development and maintenance of computerized data bases consisting of clinical information for patients in therapeutic clinical trials. The project team must consist of programmer/analysts, nurse-data managers, and data technicians. All work must be performed on site at the NIH Clinical Center in Bethesda, Md.

Response is encouraged from organizations with specific experience in both the development of generalized file and data base management software systems and the operation of a coordinating center for prospective therapeutic research. It is anticipated that the contract will be awarded for three years.

Contract Specialist: Helen Lee
Cancer Treatment
301-427-8125

NCI CONTRACT AWARDS

Title: Incorporation of 10 additional alteration/-renovation/upgrading projects necessary to support the research program being conducted at the Frederick Cancer Research Center, modification
Contractor: Litton Bionetics, $331,764.

Title: Inter- and intraspecies identification of cell cultures
Contractor: The Child Research Center of Michigan, $463,598.

Title: Search for RNA virus-specific genetic material, continuation
Contractor: St Louis Univ. School of Medicine, $38,701.

The Cancer Letter _Editor Jerry D. Boyd
Published fifty times a year by The Cancer Letter, Inc., P.O. Box 2370, Reston, Virginia 22090. Also publisher of The Clinical Cancer Letter.