THE CANCER LETTER

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REVIEW OF ORGAN SITE PROGRAM REQUESTED BY NCAB SET FOR NOV. 23-25; EIGHT MEMBER COMMITTEE NAMED

The four projects supported through NCI's Organ Site Program will be reviewed Nov. 23-25 by an ad hoc committee whose recommenda-

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In Brief

SIX MAJOR NIH POSITIONS NOW OPEN; M.D. ANDERSON PLANS MORE THAN $25 MILLION IN CONSTRUCTION

ANOTHER NIH institute director job will be open, with the announcement last week by G. Donald Whedon, director of the National Institute of Arthritis, Diabetes, and Digestive & Kidney Diseases, that he was leaving Sept. 30. That brings to six the number of major vacancies to be filled (not counting the various NCI vacancies), including that of NIH director. Others are directors of the National Institute of Neurological & Communicative Disorders & Stroke, National Heart, Lung & Blood Institute, National Institute of Child Health & Human Development, and Office of Medical Applications of Research. Whedon, NIADDKD director since 1962, has outlasted four NIH chiefs and six Presidents. Search committees are working on all six vacancies. . . . **MAJOR IMPROVEMENTS** totaling $25.4 million have been approved for the Univ. of Texas System Cancer Center/M.D. Anderson Hospital. They include an eight level research building, including a new research library; remodeling of food processing plant into a center devoted to a wide range of cancer prevention and research programs to be known as the Biomedical Resources Building; and a new engineering and maintenance building. . . . **TOXICITY PREDICTION SYSTEM** has been developed by Health Designs Inc. of Rochester, N.Y. The company says the computer based system permits the prediction of the level of acute toxicity, mutagenicity, carcinogenicity and teratogenicity for organic chemicals. Structure activity equations are based on chemicals for which those effects have been measured. The computer program then produces predictions which the company said can be used for prioritization of testing. . . . **CANADIAN GOVERNMENT** has approved aspartame as a food additive, an action previously taken by the U.S. FDA. . . . **CARL LEVY**, chief of the Laboratory of Molecular Biology at the Baltimore Cancer Research Center, died of leukemia Aug. 9 at the center. Levy, 53, joined BCRC in 1968 as head of the enzymology and drug metabolism section. . . . **JAMES PRATHER**, administrative officer for the NCI Office of the Director, participated in the annual "retreat" for NCI executives when they go off for a few days to work on budget and planning. This year it was at Harper's Ferry, and Prather, a jogger, was out early when he heard cries from the nearby Potomac River. A 52-year-old woman had been clinging to a rock most of the night after her boat had capsized. Prather summoned help; the woman was rescued.

NCI RESTORES $240,000 OF HALF MILLION CUT FROM ORGAN SITE PROGRAM IN FY '81

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tions could lead to reapportionment of funds among the projects and possibly even the phaseout of one or more of them.

The review was called for in a report by the National Cancer Advisory Board's Subcommittee on Organ Site Programs (*The Cancer Letter*, May 1). The full NCAB approved the subcommittee's recommendations which included mandate for an in depth review of the four projects to assess the quality of their planning, communications, review of their grants, administration and scientific content.

A unique feature of this review will be an attempt to determine the relative merits of the four projects, in the event the NCAB decides that one or more should be reduced in scope or phased out in order to free up money for the others, for new organ site projects, or even for unrelated programs.

The four projects are the National Prostatic Cancer Project, National Bladder Cancer Project, National Large Bowel Cancer Project, and National Pancreatic Cancer Project. Each is administered through a headquarters grant at institutions away from NIH, which many feel is the strongest feature of the Organ Site Program. Each has its own grant review committee which reviews applications and assigns priority scores, following NIH procedures. NCAB concurrence is required for grants in excess of $50,000.

Project directors and headquarters institutions are: Bladder, Gilbert Friedell, St. Vincent Hospital, Worcester, Mass.; Pancreatic, Isadore Cohn Jr., Louisiana State Univ.; Large Bowel, Edward Copeland III, M.D. Anderson Hospital; Prostatic, Gerald Murphy, Roswell Park Memorial Institute.

The ad hoc committee will meet in Bethesda, with the review not involving site visits. The first two days will be devoted to review, the last for writing the committee's report.

Members of the committee are Werner Kirsten, Univ. of Chicago; Stewart Sell, Univ. of California (San Diego); Edward Bresnick, Univ. of Vermont; Anna Barker, Battelle Columbus; Robert Handschumacher, Yale Univ.; Albert Owens, Johns Hopkins Univ.; Ralph Scott, Louisville Univ.; and Jerome DeCosse, Memorial Sloan-Kettering.

The NCAB Subcommittee on Organ Site Programs, chaired by William Powers, will meet Oct. 4, prior to the full Board's Oct. 5-7 meeting, to draw up guidelines for the review.

Another of the subcommittee's recommendations was that consideration should be given to establishing new organ site projects, especially one for cancers of the lung and upper respiratory tract. The ad hoc committee will not be asked to go into the feasibility of that recommendation; the subcommittee will follow up on that at a future time, probably not until after the review of the four existing programs has been completed.

Still another recommendation was that $500,000 trimmed by NCI Director Vincent DeVita from the 1981 fiscal year budget for the four programs be restored. NCI previously had sliced $1.8 million from the 1980 level of $17.6 million, and then cut the other $500,000 when it appeared that a $25 million Presidential rescision in the 1981 NCI budget was imminent. Congress held the rescision to $10 million, but none of the money had been restored by the time of the May NCAB meeting, leaving the Organ Site Program total for 1981 at $15.3 million. The subcommittee demanded and the full Board agreed, that the $500,000 be put back into the program.

As of this week, NCI had restored $240,000, bringing the total of the Organ Site Program to $15.54 million, with about six weeks left in the 1981 fiscal year.

NCAB members in general have been strongly supportive of the Organ Site Program, which was a creation of the Board in the early 1970s. During the discussion of the subcommittee's report, only Janet Rowley expressed some reservations.

"I have mixed feelings on the report," Rowley said. "I would vote for review of the projects. But many of us feel that the philosophy of the Organ Site Program was to encourage development of high quality research where nothing was going on. Some of them have been very successful. . . . When they have developed to the point where they can be relatively independent, they should be phased out. . . . I would not favor restoring funds to the Organ Site Program."

The Breast Cancer Task Force is an organ site project but is not part of the off campus directed Organ Site Program. It is grant and contract supported through a branch in the Div. of Cancer Biology & Diagnosis. However, it also has been mentioned by DeVita as a prospect for phasedown or phaseout because of its success in stimulating research. That suggestion has met with powerful opposition, and DeVita has not pressed the issue.

"The task force term implies an emergency," Board member Rose Kushner commented. "It leads people astray. Maybe it is time to call it the Breast Cancer Program." She noted that BCTF grants are peer reviewed, "as any other grant."

"All Organ Site Program grants are peer reviewed by individual committees," Board member F. Kash Mostofi said. "Their review is quicker, three to four months from application to funding."

"There are several things about the Organ Site Program. It is not just a question of attracting investigators," said Board member Harold Amos. "The number one consideration is that it involve a site where attention is needed. Developing a new animal model is not exciting, and does not attract investiga-

tors." Amos said he agreed that a review should be held, "to find out exactly where the Organ Site Program is. The subcommittee feels strongly about that, and also about determining if additional sites should be added.

"The Organ Site Program is not popular with directors of the divisions, probably because they can't control them," Amos continued. "The (NCI) director isn't terribly keen about them. We have a lot of money in contracts because of a need to emphasize certain areas."

One objection to the Organ Site Program, Amos contended, "is because of the feeling they are taking money from R01s and P01s. The question is, are they taking money from contracts? Our conviction is that Organ Site Programs have not outlived their usefulness, and there may be other sites needing attention, and if anyone can suggest a better way, I would like to hear it."

William Terry, acting director of the Div. of Resources, Centers & Community Activities, said he was confused by Amos' comment about the degree of control by the division directors. "We look on this as no more or less control than we have over other grant supported programs."

Rowley noted that her point had been that consideration should be given to rotating some sites out of the program and bringing others in.

Board member Robert Hickey, a member of the subcommittee, said that "rotation on and off in part represented our view. We have suggested renal cancer and cancer of the central nervous system as possibilities, and particularly pulmonary and upper air passages. I feel strongly that the work is not done. The effort to wean new scientists into the program is not complete."

Board member LaSalle Leffall said that the subcommittee "felt very strongly that if we were to have a special group look at the programs, the NCAB and NCI administration should be confident it is a dispassionate, independent review. Perhaps the Board then would retract some of the strong support for the program (if the review warranted it)."

Kushner asked if the DRCCA Board of Scientific Counselors "is made up of dispassionate members who could look at these programs (which are housed in that division)?"

"No, they are very passionate, and opinionated as well," Terry quipped. "It was felt that since this Board and its subcommittee were looking into the programs, it was one of the areas we did not need to get into now."

REVERSING POLICY ON CANCER CONTROL RESEARCH TOP ACCOMPLISHMENT: TERRY

Bill Terry had planned to review the year's accomplishments of the Div. of Resources, Centers & Community Activities when the division's Board of Scientific Counselors marks its first anniversary at its meeting Oct. 22-23.

Instead, Terry is preparing to return Sept. I to his former job as associate director for immunology and chief of the Immunology Branch in the Div. of Cancer Biology & Diagnosis and leave DRCCA to its new director, Peter Greenwald. Terry decided to summarize the "major changes that have occurred during the two years of my tenure as acting associate director for cancer centers, and the subsequent two years when I served as acting director, first of the Div. of Cancer Control & Rehabilitation and then of DRCCA" in a letter to Board Chairman Stephen Carter. Excerpts from the letter follow:

"If there is a single event with which I would like to have my name associated, it is the reversal of the NCI policy that had eliminated research from the Cancer Control Program. Gaining a consensus for the concept that the Institute's Cancer Control Program must have a research base, and formalization of that concept in the 'Statement on Cancer Control' were crucial steps in beginning to develop a strong disease control effort, properly rooted in the research tradition of the National Institutes of Health. If I had accomplished nothing else in my two year excursion through cancer control, this alone would have justified the time and effort.

"Experience has taught me that the development and management of high quality, extramural research programs requires that at least some of the developers and managers be active researchers. The Div. of Cancer Control & Rehabilitation had no intramural program, and it was clear that DRCCA could not perform effectively in the absence of intramural cancer control research. The recruitment of scientists who are competent in disciplines of importance to cancer control and who are actively engaged in their own research was high on my list of priorities as part of a strategy to make this Division the cornerstone of the national cancer control program. Success in obtaining agreement within NCI for this significant alteration of Institute policy has been achieved and should have a major impact on the future development of cancer control.

"The support and sustenance of cancer centers is one of the major responsibilities of this division. When the Cancer Centers Program entered DRCCA, it brought with it the thorny problem of the revision of cancer center support grant guidelines. Approval of the new guidelines by the Board of Scientific Counselors and the National Cancer Advisory Board has ended five years of vigorous, and at times acrimonious, discussion and negotiation. The new guidelines should help the cancer centers to continue to develop as strong research organizations despite existing financial limitations, and I consider it a major accomplishment to have brought these negotiations to a successful conclusion while maintaining the

trust and friendship of most of the center directors.

"Obviously, much else has occurred in the past several years, but I believe that establishing cancer control as a research discipline and gaining approval for DRCCA to have an intramural research component provide the foundation for a successful approach to cancer control, and these two accomplishments should be landmarks in the evolution of the disease control aspects of the National Cancer Program. Ending the debate about cancer center guidelines has also been a major step forward, as it will now be possible for center directors and the Cancer Centers Branch staff to channel their energies into further development of these very important institutions.

"Within the past months, some new issues have been brought to the Board of Scientific Counselors by the director of NCI. Dr. DeVita has asked the Board to determine whether the core grant is an appropriate mechanism for funding cancer centers that do only laboratory research. It isn't clear why this issue has been raised at this time, but let me take the prerogative of the outgoing director and say that I hope the Board and its Subcommittee on Centers will answer the question with a resounding "yes." The core grant mechanism works well for supporting research at all centers, and there is no reason to cause further turmoil in the cancer center community by attempting to modify the mechanism for funding core activities at laboratory, as opposed to clinical or comprehensive, research centers.

"Dr. DeVita has also established a special Board of Scientific Counselors' Subcommittee on Community Oncology and Technology Transfer and charged the subcommittee to work on '. . . the establishment of a system that allows constant interaction of our research effort (and its findings) and (the community of physicians). . . .' Fortunately, a system already exists. Several thousand community physicians have been participating in clinical research as members of clinical cooperative groups for the past five years, and the community is currently supplying from 20 to 40 percent of all patients entering the protocols of some cooperative groups. Although the present system is far from perfect, it is quite successful and has proven that there are substantial numbers of community oncologists who are anxious to participate in clinical research. Moreover, the available information indicates that they can perform that research at the same level of quality and achieve the same results as their colleagues at academic institutions.

"With some slight modifications, this system can be made the basis for more fully integrating community physicians into the National Cancer Program, and facilitating their interaction with cancer centers and regional cooperative groups, as well as national cooperative groups. It is conceivable that a totally new and more desirable mechanism can be designed, but if so, its implementation should not be permitted to disrupt existing activities until the new system is proven more effective than the present one.. In any event, it should be considered that this subcommittee is not dealing with a problem, but rather with an opportunity to mobilize the army of well trained and willing community oncologists into a force that will act in partnership with existing research organizations to assure the delivery of improved cancer care in the community, while at the same time participating in the ongoing national research effort," Terry concluded.

Rose Kushner, member of the National Cancer Advisory Board, submitted the following letter to the editor:

"I would like to congratulate and commend Dr. William Terry for the fine job he has done as the acting director of DRCCA. Although DRCCA now includes parts of other divisions of NCI, its nucleus is made up of remnants of the former Div. of Cancer Control & Rehabilitation. The youngest division of NCI, DCCR had been suffering from fast growing pains caused by too many earmarked cancer control dollars. Because no one has ever been able to define these two words, it was difficult for DCCR to learn exactly how to do its mission. After it was abolished, the newly formed DRCCA became an unwieldy assemblage of odds and ends, ranging from behavioral medicine to organ site programs to chemoprevention. Occupational medicine, professional and public education and the Cancer Information Service network are also encompassed by DRCCA.

"Binding such a disparate collection of programs and their individual chiefs together into a workable division would have been a formidable job, even for a Harvard Business School graduate. Dr. Terry was a bench scientist who, somehow, was able to do this in barely two and one half years, without the benefit of an MBA. It wasn't easy. Those of us who watched him dash from meeting to meeting, from one coast to the other, know that he worked tirelessly to create a whole division that is more than just a sum of its parts. Everyone connected with the National Cancer Program is in his debt."

DRCCA BOARD COMMITTEE CONSIDERS NCI ROLE, ISSUES IN EDUCATION

The organization of NCI's education programs, NCI's continuing role in supporting undergraduate training programs, NCI's role in supporting educational research, and the balance among NCI's various educational efforts were among the issues addressed by the Div. of Resources, Centers & Community Activities Board of Scientific Counselors Education Committee.

Christine McGuire, chairman of the committee and professor of medical education at the Univ. of Illinois College of Medicine, presented the committee's first

report to the DRCCA Board. After reviewing the history and present content of the program, the report presented a number of questions and issues to be addressed. "No consensus about recommendations has as yet been reached regarding these issues," the report said. "At this time they represent an agenda for further discussion."

What is (ought to be) the mission of the education program?

There is no mission statement for the Program that identifies its goals and objectives. Nor does there appear to be an overall guiding principle that can be used to make decisions about what activities this program should be supporting, and how responsibility for these should be distributed among its several branches. Indeed, the program appears to include a miscellaneous group of activities that fail to fit neatly within any conceptual framework. As a result, the program has a certain ad hoc appearance which, though not surprising given its history, nonetheless, presents certain obvious difficulties. There is no question about the need for an education program, but there is need to identify the overall direction of that program.

Does the apparent lack of parallelism among the three branches present a problem?

The Educational Research & Evaluation Branch seems to have been assigned a very different kind of role from that of the other two branches (Clinical Manpower Branch and Research Manpower Branch). This presents some difficulties in determining its proper responsibility for certain kinds of initiatives, particularly in professional education. Thus, for example, there appears to be significant redundancy between the contracts for professional education in prevention, administered by EREB, and the training responsibilities of the Clinical Manpower Branch. Logically, it would appear that a professional education program in cancer prevention is within the scope of the educational activities of the Clinical Manpower Branch.

What is (should be) the relationship among the branches? In particular, how are the evaluation activities of EREB related to the Clinical Manpower and Research Manpower Branches?

Educational evaluation may be thought of either as a support service or resource to be made available to all constituents, or as an independent function of a separate branch. Further, the resource may be organized to be responsive to requests from potential users or to take the initiative in planning and conducting evaluations. In the present structure it is not clear which branch is responsible for taking the initiative with regard to educational evaluation (EREB or the branch responsible for administering a project), nor is it clear which branch has the final authority for decisions about evaluation activities.

Why is there variation in the peer review process within the program area?

One branch employs a chartered committee both as an advisory to the branch chief and as the peer review body; another uses DRG committees with ad hoc reviewers and the NCAB as backups; the third uses one peer review committee within the Div. of Extramural Activities and one independent of the division. This lack of consistency in the peer review process and the possibility for conflict of interest in the use of a chartered committee needs examination.

What is (should be) the continuing role of the Institute in supporting undergraduate medical and dental education in oncology?

Issues related to this question concern (1) effectiveness, (2) target groups and (3) the proper division of responsibility between local institutions and NCI. With respect to the first, the question is whether funds are best utilized at the undergraduate level or at the point where an individual has made a commitment to practice in an oncology subspecialty where there is a shortage of manpower. With respect to the second issue the question is whether such nearly exclusive emphasis should be given to physicians and dentists, or extended to nurses, clinical psychologists, and other health professions who work in the cancer field. With respect to the third issue there are two related questions: first, whether in the face of increasing competition for time in the undergraduate medical curriculum it is either appropriate or effective to support education in oncology at this level. (Parenthetically, it might be argued that any rationale for doing so is equally applicable to providing federal support for education in heart disease, diabetes, atherosclerosis, etc. ad infinitum). Secondly, there is the related question of determining when a local institution should properly assume responsibility for the ongoing support of a program originally introduced as an innovation. Clearly, it is difficult to justify continued Institute support of undergraduate professional education which is the proper responsibility of the professional schools and which should be supported by them. In any case, at the very minimum, consideration should be given to methods for establishing a genuinely competitive review process and for requiring greater institutional commitment (e.g. matching funds).

To what extent is the emphasis in research training appropriate to current needs?

Historically, there appears to be a very heavy emphasis on training in the physical and biological sciences, to the near exclusion of the behavioral sciences. While considerable reliance must be placed on the data generated by the NAS on research manpower needs, consideration needs to be given to methods for motivating specifically needed professionals (such as health educators, epidemiologists, clinical psychologists and biostatisticians) to enter training at

the postdoctoral levels in oncology. Further, a somewhat more representative balance of these fields on the regular review committees might facilitate the shift to a broader concept of research training and, simultaneously, provide more expert review in the newer areas of training.

Is there an adequate system in place for evaluative followup of trainees supported by NCI?

While providing relatively complete followup, the present system for maintaining individual records and for retrieving information on categories of trainees appears to be somewhat cumbersome. Consideration needs to be given to ways of computerizing this information in a form that facilitates response to policy-related questions.

What is (ought to be) the role of NCI in performing educational research per se?

While there may be certain aspects of cancer education which present unique educational problems that can be most effectively attacked through basic or applied research in education, what is the justifcation for NCI support of educational research methodology?

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. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs to the individual named, the Blair Building room number shown, National Cancer Institute, 8300 Colesville Rd., Silver Spring, Md. 20910. RFP announcements from other agencies reported here will include the complete mailing address at the end of each.

RFP NCI-CP-FS-01004-77

Title: *Genetic factors in patients at high risk of cancer*

Deadline: *Oct. 5*

The Div. of Cancer Cause & Prevention of NCI, Clinical Epidemiology Branch, would like to contract with one or more organizations that are highly experienced in conducting cytogenetic and genetic marker assays on human fibroblasts, blood cells, and other specimens to aid in identifying mechanisms of increased cancer susceptibility. The contractor(s) must provide both service and research capabilities.

The main products (deliverables) of the contract(s) are karyotypes, summaries of all cytogenetic findings and reports on polymorphic genetic markers; however, active participation by the contractor(s) is required (1) in carrying out the specific assay(s), (2) in analysis and interpretation of test results, and (3) in monitoring innovations, progress, and new developments in the field of cytogenetics and genetic markers, as they might apply to the study of high risk cancer patients and families.

The organizations to be considered must have had a minimum of five years studying (a) cytogenetic abnormalities with special emphasis on the required assays or (b) genetic polymorphisms of red blood cells and serum, and (c) have a core staff who can provide expertise in these areas as needed.

The following assay segments comprise the core of the contract(s):

A. Cytogenetic analysis of peripheral blood, bone marrow and skin fibroblast cultures using standard Giemsa staining and additional special techniques including trypsin-Giemsa, R-, C- and silver staining as needed.

B. Sister Chromatid exchange analysis of banded chromosomes from peripheral blood specimens.

C. Cytogenetic analysis of banded prophase (extended) chromosomes from peripheral blood cultures.

D. Cytogenetic analysis of banded chromosomes from solid tumors.

E. Analysis of at least 28 erythrocytic enzymes and serum proteins on appropriate specimens.

Organizations submitting proposals for Assay Segment A must document that office, laboratory and computer facilities are in the Washington, D.C. metropolitan area, since quick, safe, and reliable transport and delivery of irreplaceable biologic specimens must be assured, sometimes on short notice.

Contract Specialist: Patrick Williams
RCB Blair Bldg. Rm. 114
301-427-8888

RFP NCI-CM-27504

Title: *The isolation of antineoplastic agents from plants*

Deadline: *Approximately Oct. 13*

NCI's Div. of Cancer Treatment will make available to interested contractors a request for proposal for the fractionation and isolation of antineoplastic agents from plants. Organizations should have capabilities and facilities for (1) the fractionation and isolation of antineoplastic agents from plants and (2) the determination of chemical structures of the antineoplastic agent from plants.

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; (3) to develop isolation procedures suitable for pilot plant scale up if necessary.

NCI will provide the plant materials and in vivo tumor bioassays. The contractor may or may not elect to use in house in vitro bioassays. The facility must have the capacity for grinding plant samples of 25-500 lbs., preparation of extracts from 50 lb. samples, for performing all types of organic chemis-

try 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, preferably 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 the total project will require a minimum of 12 technical man years of effort per year. The government will consider multiple awards of four or five technical man years (without in house in vitro bioassay capability) and five or six technical man years (including in house in vitro bioassay capability). The proposal should clearly indicate levels being proposed. The number of awards to be made and the level of effort of each will be at the discretion of the government.

Contracting Officer: John Palmieri
RCB Blair Bldg. Rm. 228
301-427-8737

RFP NCI-CP-FS-11034-65

Title: *Support services for a mortality study of airplane maintenance workers*

Deadline: *Sept. 15*

The Environmental Epidemiology Branch, Div. of Cancer Cause & Prevention, NCI, is seeking technical, managerial, and clerical support to conduct a follow-up mortality study of approximately 20,000 civilian airplane maintenance workers who were actively employed at Hill Air Force Base, Utah in 1952. Putative occupational exposures included trichloroethylene, toluene, zinc chromate, and chloroform among others. The data will be analyzed for possible relationship of these putative exposures to cancer.

The study will involve collaboration with the American Federation of Government Employees, the U.S. Air Force, and NCI, and is designed to relate the cause specific mortality experience of individuals who worked at Hill Air Force Base to putative workplace exposures as determined by job titles, work locations, types of exposure and length of exposure.

The duration of this contract is expected to be three years, to be funded annually, and to begin approximately October 1981. The respondent may be located anywhere in the United States but it may be cost effective for the respondent to be located within 35 miles of Bethesda, Md., because of the need for close coordination and frequent meetings with the project officer.

Prospective contractors must have had experience in conducting all phases of cohort mortality studies, including design of data collection documents; abstracting, keying, editing, updating, and recoding of data; tracing of individuals to determine their vital status; creating and manipulating data files; developing estimates of historical workplace exposures; and obtaining death certificates for deceased subjects. Special consideration will be given to respondents who have, and can document, previously established contacts with the civilian branch of the National Personnel Records Center in St. Louis, where most of the necessary records are stored.

Personnel required include: (a) project director, with at least five years of related management experience, who will serve as the principal investigator (10-20 percent of time for years 1, 2, and 3); (b) a data manager, with at least three years of directly related experience who will supervise all aspects of the data collection and followup (100 percent of time for years 1, 2, and 3); (c) an industrial hygienist with at least three years experience in reconstructing occupational exposures and defining exposure categories based on employment records (a total of 1.5 person-years will be required through the duration of this three year project); (d) a computer programmer with at least three years experience in various aspects of writing, debugging, and documenting computer programs and using standard statistical packaged programs (50 percent for years 1, 2, and 3); and (e) abstractors, coders, keyers, and clerical staff as needed to complete the study.

Under no circumstances are responding organizations to contact the U.S. Air Force, the AFGE, the NPRC or any U.S. government employees in regard to this procurement, except to the contracting officer, before award of the contract.

Contracting Officer: Sydney Jones
RCB Blair Bldg. Rm. 114
301-427-8888

RFP NCI-CP-FS-11029-63

Title: *Biological specimen repository for patients at high risk of cancer*

Deadline: *Sept. 25*

The Environmental Epidemiology Branch, Field Studies & Statistics Program, NCI, desires to contract work to an organization having the technical and personnel capabilities to do the following:

1. Maintain a biological specimen repository of over 2,000 skin fibroblast and tumor cell strains derived from normal persons and persons at high risk for cancer.

2. Maintain these viably frozen cell strains in liquid nitrogen freezers equipped with backup and failsafe mechanism to insure their continued viability.

3. Establish fibroblast cultures on 300 new primary skin biopsy samples with at least a 90 percent success rate.

4. Establish epitheliod lines on 50 patients and tumor lines from 14 to 20 specimens per year.

5. Process up to 100 established cell lines from outside contributers per year for storage.

6. Prevent and detect all form of contamination and be able to verify the specimen and genetic source of the cell strain.

7. Distribute a maximum of 500 specimens per year to outside collaborators throughout the United States under the direction of the NCI project officer.

The organization must have the following:

1. Experience and demonstrated proficiency in all phases of human tissue culture of fibroblast, epitheliod and tumor lines.

2. The ability to freeze and retrieve viable cell strains.

3. The experience for characterizing cell strains and for sensitive detection of possible contamination.

4. Adequate space and equipment to maintain the proposed resource.

An important requirement is that the respondents' facility be within one hour driving time from the NIH campus in Bethesda, Md.

The following personnel will be required:

(1) Principal investigator—Phd or equivalent with expertise and experience in tissue culture of skin fibroblast, epitheliod cell lines and tumor cell lines who will devote 20 percent of time.

(2) A senior technician who will devote 100 percent of time to all phases of tissue culture.

(3) A laboratory technician who will devote 50 percent of time to tissue culture.

Contract Specialist: Donna Rothberg
RCB Blair Bldg. Rm. 114
301-427-8888

SOURCES SOUGHT

Project No. NCI-CP-FS-11033-51

Title: *Cancer risk in x-ray technologists*
Deadline for qualifications statements: *Aug. 31*

NCI is interested in conducting an epidemiologic study on the possibility of increased cancer risk associated with chronic occupational exposure to low-LET radiation. The existence since 1926 of a professional registry (The American Registry of Radiologic Technologists (AART)) of about 170,000 medical x-ray technologists offers a unique opportunity for studying a large, well defined population occupationally exposed to highly fractionated low-LET radiation.

A pilot study has been conducted by the Univ. of Minnesota which determined that inactive members of the society could be located, and that useful information on individual doses can be obtained from employment records, radiation badges, and questionnaire responses. Average cumulative doses may be on the order of 5-15 rads for all but the most recently recruited members of the registry, with substantially higher doses among the earlier registrants.

For most registrants, exposure will have begun in their teens or early twenties. About 85 percent of the registrants are living, with known addresses, and about 80 percent are women. Thus, the registry offers the possibility of studying the two most sensitive organ sites for radiation carcinogenesis in women, the breast and the thyroid, at the level of incidence in a population with at least some exposure at particularly vulnerable ages.

The potential contractor must submit evidence that he has access to the population identified in the American Registry of Radiologic Technologists. In addition, the contractor must have the ability to abstract information from registry records, to trace the inactive members of the population, to determine the occurence of cancer and all causes of death. Evidence must be provided that experts in the disciplines of epidemiology, occupational medicine, and environmental health will participate in this study.

Organizations which believe they possess the necessary capabilities and can meet the criteria listed below must supply the following information:

The contractor must have access to the individuals being studied, i.e. the records available in the American Registry of Radiologic Technologists. Written proof of this access and collaboration must be submitted. The contractor must possess the expertise needed in this type of occupational epidemiologic study. Emphasis is on support capabilities and senior advisors to direct the project. The contractor should submit resumes and organizational capability statements demonstrating ability to perform this work, especially in (1) the development of mail questionnaires, (2) the development of exposure criteria for occupational studies, (3) the tracing of individuals whose last known address may be in the 1930s or 1940s, (4) the ability to obtain death certificates, and (5) previous experience in conducting other occupational epidemiological studies.

Ten copies of the resume of experience and capabilities must be submitted to:

Contract Specialist: Daniel Jones
RCB Blair Bldg. Rm. 125
301-427-8888

The Cancer Letter _Editor Jerry D. Boyd

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