THE CANCER LETTER

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Vol. 2 No. 45

Nov. 5, 1976

Subscription $100 per year

NCI TOLD TO "CUT OUT THE NONSENSE," ADEQUATELY FUND PROGRAMS AT CENTERS REQUIRED BY MANDATES

"Match the budget with the mandate." That's how John Durant, director of the Univ. of Alabama Comprehensive Cancer Center, summed up the statements he and his colleagues made during the three-day meeting of center representatives and NCI executives in Florida last week. More than ever, NCI was made aware of the frustrations caused by the diminishing share of the government's support for government mandated programs at cancer centers.

NCI staff members did not hear much that they haven't heard before, but they heard it expressed forcefully and eloquently (see the report on Durant's presentation following). Whether an NCI response can be generated that will meet the needs of the centers is not clear; what was clear is that NCI will be under increasing pressure to give the Centers Program higher priority and to take a closer look at everything it funds.

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In Brief

FCRC COMMITTEE LOSES CHANCE TO INFLUENCE RFP; RECOMPETITION TO REMAIN ON SCHEDULE

RFP TO RECOMPETE the contract for operation of the Frederick Cancer Research Center will be available Nov. 8. A preproposal conference and tour of FCRC will be held Nov. 30 and Dec. 1. NCI decided it couldn't wait any longer for the Temporary Review Committee for FCRC to advise on the workscope for the RFP, one of the tasks for which the committee was organized. The committee was given a chance to review the workscope at its meeting in September, but spent the entire day discussing broad policy matters without even looking at the proposed RFP. To stay on schedule with the recompetition process (the contract with Litton Bionetics expires September, 1977), the RFP had to go out before December. The committee, which meets again Nov. 18, will still be involved in reviewing proposals. . . . **JAMES LUCE** will leave the Mountain States Tumor Institute to join the Northern California Cancer Program, effective Jan. 1. . . . **BRIAN LEWIS**, who was a medical oncologist in private practice in San Jose and on the faculty at Stanford, has joined NCI's Div. of Cancer Treatment as special assistant for clinical research to Director Vincent DeVita. . . . **JAMES PETERS**, director of NCI's Div. of Cancer Cause & Prevention, needled cancer center directors at their meeting in Florida last week: "When Columbus left on his first voyage, he didn't know where he was going, he didn't know where he was when he got there, and when he got back he didn't know where he had been. And he did it all on government money." Mahlon Hoagland of the Worcester Foundation cracked back: "Columbus presented a superb application, and convinced his sponsors he had a good idea. No one will dispute that his voyage had a profound impact on the world."

NCI COMMITTEE BACKS CLINICAL CENTERS BUT SAYS NO "DESIGNATION" NEEDED

(Continued from page 1)

The pressure from the centers people to cut back or eliminate "fringe" programs, and to phase out funding for those who are not producing will not exclude their own grants.

"We could get enough money to adequately fund all core grants that should be funded just by squeezing the fat out of existing core grants," one center director told *The Cancer Letter.* He estimated that the "fat" could be as much as one third of the money going into core grants.

Another center director, Timothy Talbot of Fox Chase, said that the new NCI director will be faced with the difficult "political" job of "cutting out the waste and nonsense. . . NCI staff had a frightening job when they had all this money dumped into their laps. A lot of nonsense got funded. They are reconnoitering and regrouping now. You or I wouldn't have done any better, but let's keep an eye on it."

NCI has had an inhouse committee discussing several issues pertaining to centers. Thomas King, director of the Div. of Cancer Research Resources & Centers, reported the tentative recommendations the committee had drawn up regarding those issues. Those recommendations will be on Arnold Brown's desk when he takes over as NCI Director on or about Jan. 1.

The committee partially rejected the suggestion, advanced primarily by former Centers Program Director Simeon Cantril, that NCI should encourage, support and recognize a new center category, a regional cancer center with emphasis on clinical cancer diagnosis, clinical research, clinical education and outreach programs. These would be "recognized" or "designated" by NCI, as comprehensive centers now are acknowledged, Cantril had suggested.

The committee recommended that "except for comprehensive cancer centers, NCI will not officially recognize or designate cancer centers of any other type."

King's report on the committee's recommendation did include clinical centers as one of three types of centers that would be eligible for support grants – comprehensive, "where long-term multidisciplinary programs are conducted and meet the 10 characteristics established by the National Cancer Advisory Board; clinical where clinical research and/or demonstration projects are available and where bench or basic research may or may not be done; and non-clinical, where the emphasis is on bench or basic research."

The committee went along with Cantril's suggestion on geographic distribution of centers by recommending that NCI should "ensure that there are cancer centers of excellence for research in clinical oncology accessible to cancer patients and physicians within the U.S." This could include either comprehensive or clinical centers. The committee recommended that NCI complete a survey of existing centers to help determine regional needs, and suggested that, for the present at least, centers not be required to be responsible for all cancer activities in their regions.

King pointed out that the three types of centers would not involve three types of cancer center support grants.

Other recommendations of the NCI staff dealt with the definition of a cancer center, responsibilities of NCI and the centers to each other, and the internal NCI management of the Cancer Centers Program:

Definition–What is a cancer center?

"A cancer center is any organizational unit that consolidates and focuses cancer-related activities in a single administrative and programmatic structure and is supported by a cancer center support (core) grant. All recipients of this type of grant are expected to have:

"1. Established programs of high quality basic and/or clinical research.

"2. A qualified director of the cancer center program.

"3. A defined operational plan to coordinate cancer-related activities.

"4. Sufficient autonomy to fulfill its program responsibilities. In a free standing institution this presents no problem; in an academic environment the cancer center should be recognized as a major element within the organizational structure of the parent institution.

"5. Adequate physical facilities to house the center's activities and to promote collaboration among its constituent programs.

"6. Sufficient staff and accompanying space to ensure successful operation of the cancer center.

"7. An established mechanism to ensure adequate planning and evaluation of the center's programs."

King added that, "Clearly the total output and impact of a cancer center relates to its total program and therefore its total budget. However, the cost of establishing and maintaining a center relates mainly to the support of its core activities, some planning funds, and in some instances construction support."

Responsibilities of NCI and cancer centers to each other

"–That NCI through core grants be responsible for creating a climate for institutional stability. Present support is by law limited to three years (with a renewal application required to compete for a grant for another three years). This time constraint consumes much cancer center and NCI staff effort in application preparation, submission and review. This would be alleviated by lengthening core support from three to five years. Although NCI assumes the responsibility for providing institutional stability through core grants, limited resources necessitate that centers

be encouraged to gradually seek other funding sources for sustained core support. This implies that NCI center support through core grants will gradually decrease as the cancer center becomes more established.

"—That NCI not expect all cancer centers to be cast in the same mold. Each should strive to meet specific conditions of clinical excellence and regional involvement appropriate to the individual cancer center capabilities and its setting. This implies the importance of identified goals and objectives for individual cancer centers and the need for planning in each cancer center to achieve its objectives.

"—That cancer centers cannot be and should not be favored resources and receive preferential funding treatment. They should be subject to the same peer review process as other applicants competing for available research and research support funds.

"—That institutions which foster the development of cancer centers share with NCI the responsibility for center stability, by making long-term commitments of resources, space, services, and personnel. Every attempt should be made to achieve for the center self-sustaining stability over a 10-year period.

"—That cancer centers be responsible for developing and maintaining scientific excellence in their research capabilities and results. This implies that centers should cooperate with and utilize quality research resources that already exist in their region and concentrate on development efforts on needed capabilities not presently available to them.

"—That cancer centers, as a program resource, be responsive to specific NCI program needs in areas where they have demonstrated qualifications and capabilities. Both centers and NCI should recognize the need for flexibility of choice with regard to the balance of activities each center is expected to achieve.

"—That NCI and cancer centers have a joint responsibility to provide a complete index of the capabilities of cancer centers as a resource to all participants in the National Cancer Program.

"—With regard to new cancer centers, NCI has a responsibility to examine its obligations to currently funded centers in light of National Cancer Program needs and to tailor the development of new cancer center capabilities to these needs."

NCI Management of the Centers Program

"—That the Cancer Centers Program management remain in the Div. of Cancer Research Resources & Centers and be headed by an associate director having the authority to carry out his responsibilities; that he coordinate core grants with program project, regular research grants and organ site programs within the division and with related programs in other divisions of NCI, the American Cancer Society and American Assn. of Cancer Institutes."

King did not mention any alternatives to the above recommendation, but *The Cancer Letter* learned they included moving the Centers Program into the office of the NCI director, or merging it with the Div. of Cancer Control & Rehabilitation into a new Div. of Cancer Control & Centers.

MATCH FEDERAL DOLLARS WITH MANDATES, SUPPORT OUTREACH WITH GRANTS: DURANT

John Durant, joing R. Lee Clark and Gordon Zubrod on a panel to discuss "interrelationships of Depts. of Oncology to Cancer Centers and Institutions," described stresses that can occur as the result of "abruptly changing and capricious federal fiscal policies" which threaten the Centers Program.

When a center is designated as a comprehensive cancer center, Durant said, "a memorandum of understanding is signed by the center with NCI pledging fulfillment of 10 characteristics. Although institutional promises are specific, there are no details regarding continued NCI support of programs mandated in this way."

It isn't just NCI programs that are causing the problem, Durant noted. "Capitation," the effort by the government to encourage medical schools to increase their enrollment, is one of the more notorious. The Univ. of Alabama has increased its class size by 63 students a year since 1971 but has received only 53% of entitled funds to cover the increased costs.

Overhead costs have increased dramatically, due in large part to U.S. government concern over human research subjects, humane treatment of animals, affirmative action, occupational safety, privacy of student records and biohazard control.

"Each of these bureaucracies results from demands for increased accountability which have been preceded by programmatic legislative mandate," Durant said. "Furthermore, remote site programs such as Family Practice and Cancer Control have been added with an even larger expenditure of overhead funds and administrative energy. The legal costs necessary to comply with the associated regulations stagger the mind and threaten the existence of the mandated programs. Finally, these escalating overhead costs erode programmatic budget at the expense of real progress and potential public value."

Factors contributing to the stresses, Durant said, include huge increases in the NCI budget accompanied by formula cuts (such as the 80% funding of center grants that was imposed in FY 1976 then lifted); programs continued without funding, such as the research career development awards; approved but unfunded grants; creation of competing programs —ACS vs. centers communication efforts, control in centers vs. the "saturation" or community based programs; and "unrealistic demands" for too rapid transfer of support to local sources.

Durant expanded on the "unrealistic demands" for phasing out NCI support. Although Alabama is 48th in median family income nationally, local contribu-

tions to the National Cancer Program include:

—$5 million in locally raised construction money, $3.125 million in revenue sharing, and $7.5 million from a bond issue to be repaid at 7%.

—$1 million in Huntsville for a cancer treatment program involving radiation therapy and medical oncology. This facility was stimulated almost solely by the efforts of a two year old NCI supported program in radiation treatment planning. No NCI or local money is now supporting their activity, but the $1 million was diverted from an employee retirement fund.

—The state budget allocation for the cancer center has increased from nothing in 1970 to $311,000 in 1976.

—Commitments of tenure or its potential for a total of 47 new faculty of which 16 are involved in cancer control. For cancer control alone the university commitment exceeds the awarded funds of $124,000 by $736,000.

—Estimated additional local contributions to the center include $40,000 in capital investment and $6,000-$9,000 in annual operational funds.

—Total capital expenditures now equal $16,625,000. Annual operational expenditures are difficult to calculate but include the majority of the salary support for 80 members of the center.

"What has the public received for NCI and local support?" Durant asked. He then described a number of programs and their results to date, the most interesting of which is the center's adjuvant breast cancer program. This program has involved private physicians around the state and has resulted in entering 180 patients a year, about 25% of the new operable cases in Alabama. Approximately 46 have had positive nodes, and the majority of those have entered a chemotherapy trial.

The disease free survival of those patients has been almost identical to that of patients in the Fisher and Bonadonna studies. About 88% of 1,100 visits for this chemotherapy program have been to 51 private physicians in the patients' own communities, Durant said. "This is, in my opinion, technology transfer at its best."

Durant compared the results of a nurse gynecology training program at the center with the NCI contract-supported Cervical Cancer Detection Program for the state. The center's program, training nurses for family planning clinics, costs NCI $74,000 a year. Nurses then work in the clinics which use no NCI money.

"In the past nine months, graduates of this program have done 28,262 smears. Virtually 100% of the abnormalities have been biopsied. They found 42 cases of in situ cancer, six cases of microinvasive cancer and one case of invasive cancer. Followup of abnormal smears was 100%.'

In the same nine months, the NCI-Alabama program, which is costing NCI $265,000 a year, has done 9,886 smears, found 41 abnormal smears, the majority of which have been biopsied.

"We have shown the potential for private practitioners to deliver effective adjuvant chemotherapy for breast cancer and to become skilled in culposcopy," Durant said.

"If funding problems discussed at this meeting are not addressed, the consequences will be enormous," Durant said. "The following is a list of only a few of those whose lessened trust resulting from erratic funding would threaten [the program in the state] – 40,000 private donors, state legislators who provide line items in state budgets, local physicians who rely on the programs, patients who wonder what happened, university collea gues with other categorical programs which have been underfunded as a result of cancer support, and university administrators who have diverted private and local governmental and pension funds to the [program].

"If funding problems which are clearly on the increase in many institutions are not approached correctly, we will all be in trouble. A frequent approach to solving this kind of problem is to resort to political pressure. Usually this leads to substituting stress at one point in the system for stress in another and producing an adversary position for the participants who then become combatants. What must be done is to reestablish a partnership between the federal system and the universities. Therefore, I will conclude my remarks by calling for two specific initial steps:

"1. That a series of conferences be convened with NCI under the sponsorship of AACI to address the issue of how to match federal resources with federally mandated programs in cancer centers. This must include a discussion of those costs driving up overhead. The first conference should have representatives of all those institutions who have already signed a memorandum of understanding with NCI and those who have received construction funds. Representatives of the National Cancer Advisory Board, the director of NCI, and all NCI division directors should attend. A subsequent conference should include those institutions with less specific mandates.

"2. The immediate problem with funding of cancer control should be solved either by:

"a. Officially eliminating outreach as a requirement for comprehensive status or preferably,

"b. Allocating an adequate amount of money to support at a minimum each existing institution already having a memorandum of agreement with a peer reviewed single instrument cancer control grant. Responses to NCI initiatives in cancer control would be through budget allocations for individually peer reviewed supplements as presently done for epi-stat units in centers.

"In approaching these problems, it must be recognized that the division of NCI into five separate missions is a useful administrative mechanism for the allocation of a very large budget to intramural pro-

grams. However, these distinctions are difficult to apply in universities where the entire budget is a small fraction of that of NCI and where at the same time missions are far more diverse. I am convinced that administrative distinctions in university centers between basic science, clinical research, and outreach are artificial and counterproductive. Furthermore, these activities of the centers cannot be separated from those of the university in which they occur. In partnership, we must find ways of addressing this problem.

"We must all work to relieve the stress which has developed through no one's fault . . . or there will be no reputable academic institution which can afford the risks of creating either a Dept. of Oncology, a modest cancer center, or any other new federally mandated program. The time has arrived to document for those who watch so carefully that cancer centers are not a bad idea whose time is up.

"Finally, if these things are not done, the memoranda of agreement which have been signed with NCI will be viewed by institutions as not applicable and will be useless to NCI. The whole program will have become in effect another vehicle for providing 53 cents on the dollar."

DCCR FREES UP $5 MILLION; NEW POLICY LIMITS CORE SUPPORT OF CANCER CONTROL

Much of the fire from the center representatives was directed at the Cancer Control Program, where they perceive much of the "nonsense" Talbot referred to is located.

Diane Fink, director of the Div. of Cancer Control & Rehabilitation, addressed the group on the final day of the meeting, after the participants had expended most of their ammunition. That and the fact that she reported some potential good news regarding funding may have had a soothing effect—in any case, considering the earlier barrages, Fink was let off easy.

The good news, Fink reported, was that the division's merit review of its contractors, which resulted in the termination of some projects and renegotiation of other contracts has "freed up $5 million" (good news, that is, except for those who were terminated). She didn't say how that money would be spent, but presumably some would support new projects, some to fund grants that otherwise were in the approved but unfunded category.

Before the terminations and renegotiations, it seemed that the division's FY 1977 budget of $60.9 million would barely be enough to cover existing commitments.

New projects the division will consider supporting include rehabilitation research, pain control, environmental carcinogenesis, and the question of high risk screening vs. mass screening, Fink said.

The question of whether cancer center core grants may include support for control activities has become a problem. Cancer control funds are a line item in the appropriations bills and may not be transferred to other divisions, and vice versa. Review committees have cut funds for control activities out of core grant applications, and confusion has resulted.

Fink announced that her division and the Div. of Cancer Research Resources & Centers have jointly developed a policy statement to resolve that problem. Main thrust of the policy is that control activities will be funded through cancer control developmental and support grants or through contracts, by Fink's division. The only exception is that the salary and fringe benefit support for an associate director for cancer control and a secretary may be included in a core grant.

The policy statement follows:

"This policy is particularly applicable to those institutions which have been awarded or intend to apply for a cancer center support (core) grant (CCSG) and are now considering applying for a cancer control developmental and support grant. Basically, the CCSG is awarded to provide support for professional staff, centralized services and resources, shared equipment and developmental projects focused toward cancer research and research training; while the cancer control developmental and support grant provides similar support for cancer control and community outreach activities at cancer centers. The policy is as follows:

"1. Institutions shall have the option of requesting salary and fringe benefit support for an associate director for cancer control and a secretary under either a cancer control developmental and support grant or cancer center support (core) grant. It is recommended, however, that whenever possible, requests for support of such personnel be included in the cancer control developmental and support grant application. All other cancer control support shall be requested from DCCR and, if meritorious, will be funded under grants or contracts from that division.

"2. DCCR will provide basic planning, organizational and developmental support for cancer centers demonstrating the capability to carry out cancer control programs. This support is primarily provided by the cancer control developmental and support grant. This grant is intended to provide the fiscal stability to support key personnel engaged in cancer control activities, provide limited funding to initiate specific cancer control demonstration projects and other allowable direct support costs. The activities must meet the evaluation criteria for the developmental and support grant. In addition, grants are awarded by DCCR for specific projects in single interventions: prevention, detection, diagnosis, pretreatment evaluation, treatment, rehabilitation, continuing care and education if they meet the requirements of the published DCCR grant guidelines. Grant applications and contract proposals for cancer control activities referred to in this section will be reviewed by DCCR review committees.

"3. Cancer center support (core) grant applications submitted after the Oct. 1, 1976 deadline may not include requests for cancer control activities (other than for an associate director for cancer control and secretary). Cancer center support (core) grant applications received by the June 1, 1976 and Oct. 1, 1976 deadlines will receive funding for the cancer control activities for a period not to exceed two years. The length of time will be predicated on the time needed to submit a grant application to DCCR for a developmental grant to support the proposed cancer control activities. This time limit will be based on the recommendation of the review committee. These temporary exceptions are being instituted because it is recognized that undue hardships on institutions would occur should the center support (core) grants include requests for cancer control activities [other than associate director for cancer control and secretary (optional)] after the Feb. 1, 1977 deadline. If such requests are included in center core grants, they will not be funded and will not receive the time extension described above.

"4. Noncompeting continuation cancer center support grant applications (Type 5) will be unaffected by this policy. However, supplemental applications (Type 3) for cancer control activities will. Competing renewal applications (Type 2) will be subject to this policy upon submission."

(Other presentations made at the NCI-Center Directors meeting and responses from participants will be reported in subsequent issues of ***The Cancer Letter.****)*

SELECTED ABSTRACTS OF PAPERS READ AT THERAPEUTIC RADIOLOGISTS MEETING

Following are additional abstracts from papers presented at the 18th annual meeting of the American Society of Therapeutic Radiologists last month in Atlanta. (Other abstracts appeared in ***The Cancer Letter*** Oct. 22 and Oct. 29). Complete papers from which the abstracts published here were derived are available; write to Charles Honaker, director of public relations, American College of Radiology, 20 N. Wacker Dr., Chicago, Ill. 60606.

THE SIGNIFICANCE OF NEEDLE BIOPSIES AFTER IRRADIATION FOR STAGE C ADENOCARCINOMA OF THE PROSTATE – James Cox, Medical College of Wisconsin; Thomas Stoffel, Walter Reed Army Medical Center

The results of prostatic needle biopsies following irradiation for adenocarcinoma of the prostate have been used both to support and to deny the efficacy of this treatment. A systematic study of the value of post-irradiation biopsies was undertaken.

Thirty-eight consecutive patients with Stage C adenocarcinoma of the prostate received radiation therapy with curative intent. A three field technique (anterior, posterior, perineal) resulted in doses of 7000 rads in six to seven weeks at the center of the prostate. A total of 135 subsequent transperineal needle biopsies have been analyzed. Residual adenocarcinoma was found in 48 biopsies. Positive biopsies were related to the interval from irradiation—60%, 38%, 30%, and 19% at six, 12, 18, and 24 or more months respectively. There was no significant correlation with dose-time-fractionation (less than 2000 rets vs. greater than 2000 rets), or prior hormone therapy. Eight patients have had a positive biopsy after two or more negative biopsies. Despite histopathologic evidence of adenocarcinoma after long intervals, only two of thirty patients alive more than two years have shown clinical evidence of local recurrence. Post-irradiation prostatic needle biopsies yield interesting data on the regression rate of adenocarcinoma but have no significance for the individual patient.

TIME, DOSE, AND TUMOR VOLUME RELATIONSHIPS IN MEGAVOLTAGE IRRADIATION OF SQUAMOUS CELL CARCINOMAS OF THE RETROMOLAR TRIGONE AND ANTERIOR TONSILLAR PILLAR – Jerry Barker, and Gilbert Fletcher, M.D. Anderson

From March 1954 to August 1973, 204 patients with squamous cell carcinomas of the retromolar trigone and anterior tonsillar pillar were treated definitively with megavoltage radiotherapy with conventional time schedules. The data was analyzed with time-dose scattergrams in order to correlate the probability of control of the primary lesion with dose, total treatment time, and tumor volume (stage). Employing ret dose calculations the data was also analyzed by T stage to correlate controls and failures with increasing ret doses. Complications were also correlated with respect to dose and volume irradiated.

MALIGNANT PAROTID TUMOURS – Sameer Rafla, The Methodist Hospital, Brooklyn, NY

Sixty-five cases of histologically proven malignant parotid tumours are presented. Forty percent of the tumours were differentiated adenocarcinoma, while malignant mixed tumours (or pleomorphic adenocarcinomas) formed 18%. The remaining types of malignant salivary tumours are also represented in the series.

The natural history and spread of these tumours are studied in detail, with lymph-node metastasis occuring in 25% of the cases and distant metastasis in 20%. Malignant tumours involve largely the retromandibular portion of the parotid gland in over 40% of the cases and the preauricular portion in about one fifth of the cases. Both regions are affected in a further fifth of the cases.

A combination of surgery and radiotherapy was the method employed for curative therapy with radiotherapy alone reserved mainly for palliation. While the overall five-year survival was 42% late recurrences constitute a serious problem with eventual demise of about half of these patients. Various factors affecting the prognosis, including histological type of tumour, method of treatment and response to radiotherapy are discussed.

ELECTIVE POSTOPERATIVE RADIOTHERAPY FOR LOCALLY ADVANCED COLORECTAL CANCER – Sophie Turner, Elio Vieira, Phyllis Ager, and Nematallah Ghossein, Albert Einstein College of Medicine

The advantages of elective postoperative radiotherapy in colorectal carcinoma are: (1) adequate staging. Only cases at high risk of local recurrence are irradiated. (2) No delay in performing the surgical resection.

From October 1972 to December 1975, 40 patients at high risk for local recurrence (advanced Dukes' B & Dukes' C) received elective postoperative radiotherapy. Those with lesions that were located in the rectum, rectosigmoid and low sigmoid colon were given 4600 rads in 4½ weeks through an inverted T-shaped field which encompassed the pelvic and paraortic nodes. Those with tumor located above mid-sigmoid region were treated to the entire abdominal cavity by the moving strip technique.

Of the group of 19 patients with rectal and rectosigmoid lesions, 14 (74%) are alive N.E.D. (average followup 16 months—2.5 months) Only two (11%) had local recurrence in the treated area.

Those with tumor above the mid-sigmoid have failed locally in a higher proportion: 4 of 21 (19%).

ADJUVANT RADIOTHERAPY FOR RECTAL CARCINOMA – H. Rodney Withers and Marvin Romsdahl, M.D. Anderson

A series of patients with rectal carcinoma extending through the bowel wall (into peritectal tissues, lymph nodes, adjacent organs) have received post-operative radiotherapy in an attempt to reduce local recurrence and improve both survival rate and quality. At present, 26 such patients have been treated and followed for 12 to 40 months. Only one has developed local recurrence and 20 have no evidence of disease. A group of patients treated surgically for recurrent disease has also received postoperative radiotherapy and these results will be contrasted with those in patients receiving elective radiotherapy initially.

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. Some listings will show the phone number of the Contract Specialist, who will respond to questions about the RFP. Contract Sections for the Cause & Prevention and Biology & Diagnosis Divisions are located at: NCI, Landow Bldg., NIH, Bethesda, Md. 20014; for the Treatment and Control Divisions at NCI, Blair Bldg., 8300 Colesville Rd., Silver Spring, Md. 20910. All requests for copies of RFPs should cite the RFP number. The deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise noted.

RFP NCI-CM-77134

Title: *Provision of animal and laboratory facilities and the conduct of tests and studies in support of viral cancer research*
Deadline: *Approximately Dec. 15*

The following services are to be performed under the proposed contract:

1. Provide a well-equipped animal facility for the maintenance of standard laboratory animals including mice (200), rats (100), rabbits (30), guinea pigs (50), dogs (20), and goats (10). The contractor shall be responsible for procuring such animals and providing any necessary quarantine procedures. Provide essential veterinary care for such animals, technical assistance for the performance of routine procedures, e.g., inoculations and bleedings, and professional assistance for required surgical procedures and postmortem examinations.

2. Maintain quarantine and isolation facilities, including the services listed above, for up to 8 subhuman primates which may be inoculated with and which may be actively shedding type-C RNA tumor viruses. Similar isolation facilities should be provided for the maintenance of inoculated dogs (20) and rats (100). Also, receive, store (-70C) and perform essential pathological examinations on tissue specimens (gross and light microscopic), which may be obtained from these animals or on animals maintained at other sites (estimated number of specimens is 50 per year). Perform virological analyses of such tissue specimens and of body fluids produced by such animals to detect and isolate relevant RNA tumor viruses.

3. Prepare serum from all inoculated animals, according to a schedule provided by the project officer, (estimate 1 sample every 4 weeks for each animal). Distribute all such sera in 0.1 to 1.0 ml aliquot samples and store at -70C. Maintain a complete record of all sera and test results. Prepare purified IgG from such sera at the direction of the project officer (estimate 50 preparations per year).

4. Receive, distribute and store (-70C) human sera at the direction of the project officer (estimate 1000 samples per year).

5. Perform the following analysis on serum samples at the direction of the project officer (estimated number of individual tests per year in parentheses): a) Indirect immunofluorescent microscopy using infected and uninfected cells (2000). b) Neutralization of biological activity of select RNA tumor viruses (1000). (Note: In this regard, the contractor should be able to demonstrate that he has well-standardized, quantitative in vitro assays for measuring the biological activity of woolly monkey (simian) sarcoma virus, gibbon ape leukemia virus, putative human leukemia virus (HL-23 virus), and baboon endogenous virus). c) Serum cytotoxicity testing (2000). Test the release of chromium-51 from appropriate target cells (isotype and cells provided by GPO) on exposure to heat inactivated serum and complement. Contractor must provide appropriate radiation safety facilities and a y-scintillation counter. d) Immunoprecipitation of purified viral structural proteins (prepared and radiolabelled with 1251 elsewhere) (500).

Appropriate absorption and specificity tests should be performed on selected serum samples analyzed in the above tests.

6. Perform all procedures necessary for the evaluation of cell-mediated immunity in selected inoculated animals or in humans as observed below.

7. The contractor shall perform experimental studies to optimize the production of baboon endogenous virus (BaEV) from cultured mammalian fibroblastic cells. Such studies should include investigations of the optimal cell conditions for processing and concentrating virus. The recovery of BaEV should be determined both as reverse transcriptase activity and as biological activity (both of these procedures are required for immunological tests listed above). When these conditions have been defined, they shall be used for the production of 25 liters of BaEV-containing tissue cultures fluids per week which shall be delivered to the GPO at a minimum concentration of 1000X.

It is anticipated that the contract will require approximately 22 technical man-years of effort per year. It is estimated that the contract will be awarded for a three-year period.

Contract Specialist: S.R. Gane
Cancer Treatment
301-427-7463

RFP NCI-CM-77131

Title: *Viral studies of cancer chemotherapy patterns*
Deadline: *Nov. 26*

Clinical support contract to supply high quality viral diagnostic studies of cancer patients participating in the chemotherapy program of the Baltimore Cancer Research Center (BCRC) and the Pediatric Oncology Branch (POB), DCT, NCI. These patients undergo severe depression of host defense mechanisms which protect them against infection, and be-

come susceptible to their own normal microbial flora as well as to accepted pathogens. Certain types of viruses infect such compromised hosts with a high degree of frequency, and latent viruses may become active and cause infection. Data obtained by means of this contract will provide specific identification of the infecting viruses to enable use of optimal therapy.

Specifically, the contractor will utilize current and high quality viral diagnostic techniques to detect the presence of viruses in the cancer patients participating in the BCRC and the POB, NCI chemotherapy programs.

These studies include: 1) Viral isolation and identification procedures on nasal swabs, throat washings, feces, urine, blood, cerebro-spinal fluid, swabs or scrapings from lesions or other possible sources of infectious material. These samples must be checked to the presence of viruses using standard tissue cultures, fluorescent antibody techniques, chick embryo and suckling mouse inoculations and/or other procedures as required. Viruses to be checked include, but are not limited to: adenoviruses, respiratory syncitial viruses, influenza viruses (during epidemics), Coxsackie, Herpes, cytomegaloviruses, and ECHO viruses. 2) Viral antibody level determinations of acute and convalescent sera to ascertain specific viral infections. 3) Electron microscopic studies of material from lesions or body fluids to detect the presence of viruses.

This information will allow the physician to select more appropriate supportive measures for patient care. Additionally, in order to maintain optimal quality of the work performed, quality control tests, setting up and/or evaluation of new techniques, as well as response to special physician requests may be required. Lastly, high titer immunoglobulin may be requested by the participating groups, dependent upon adequate funding and subject to project officer approval.

Up to 240 samples for viral isolations per year will be provided, with a wide range of variation in number of samples being sent monthly. Similarly, up to 300 sera will be provided for determination of antibody titer levels each year with an average of approximately 15 antigens, out of a total battery of 20 antigens which must be available for testing, to be utilized for each. The number of serum samples monthly also varies widely. Electron microscopic studies are to be performed each year on approximately 10 samples.

The contractor must supply all of the trained personnel, facilities, equipment, labor and materials necessary to carry out the work required by this proposed contract. Due to the nature of this project, the contractor must be located within an area sufficiently close to both BCRC, Baltimore, and the POB, NCI, Bethesda, to provide timely pick-up and delivery of samples as specified in the RFP.

Contract Specialist: L. Swift
Cancer Treatment
301-427-7463

RFP NCI-CB-74118-37

Title: *Studies on the influence of chemical carcinogens, including environmental agents and/or hormones on viral gene expression in the initial events leading to mammary tumor development*

Deadline: *Feb. 7, 1977*

A model system in which both viruses and chemical agents have been implicated in the induction of mammary neoplasms should be employed.

Contract Specialist: R.H. Stallings
Biology & Diagnosis
301-496-5565

CONTRACT AWARDS

Title: Classification of non-Hodgkin's lymphomas--central facility
Contractor: Stanford Univ., $184,440.

Title: Classification of non-Hodgkin's lymphomas--contributing facility
Contractors: Stanford Univ., $165,215; New England Medical Center Hospital, $48,867; Univ. of Minnesota, $102,785; Roswell Park Memorial Institute, $137,107.

Title: Clinical staging system for multiple myeloma
Contractor: Arizona Board of Regents, $61,571.

Title: Cancer Control program for clinical cooperative groups--Eastern Cooperative Oncology Group (ICOG)
Contractor: Frontier Science & Technology Research Foundation, Amherst, NY.

Title: Production of bulk chemicals and drugs
Contractor: Monsanto Research Corp., $2,036,174.

SOLE SOURCE NEGOTIATIONS

Proposals are listed here for information purposes only. RFPs are not available.

Title: Demonstration of cancer rehabilitation facilities and/or departments
Contractor: Emanuel Hospital, Portland, Ore.

Title: Support services for field studies
Contractor: Westat Inc., Rockville, Md.

Title: Iowa population based cancer epidemiology research center
Contractor: Univ. of Iowa.

The Cancer Letter—*Editor* JERRY D. BOYD

Published fifty times a year by The Cancer Letter, Inc., 1411 Aldenham Ln., Reston, Va. 22090.