THE CANCER LETTER

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NCI TO FUND ONLY 30-35% OF APPROVED GRANTS EVEN WITH $815 MILLION; CONSTRUCTION SLASHED

Although NCI's budget for the 1977 fiscal year, starting Oct. 1, will be $815 million, up $42 million over 1976, "there will be at least as much discontent at $815 million as there was six years ago at $180 million," Chairman Benno Schmidt commented to the President's Cancer Panel last week.

A major share of the discontent Schmidt was talking about will be among the 65-70% of those investigators whose grants will be approved by NIH study sections but who will not be funded.

Also among the discontented will be those whose construction grants have been or will be approved but who will not get their money is fiscal 1977. Director Frank Rauscher told the Panel that he intends to ask the congressional appropriations committees for authority to reprogram $10 million from construction grants into other grant and contract pro-

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In Brief

HOUSE PASSES FY '77 MONEY BILL, BUT VETO SEEMS LIKELY; NIH RELAXES MOONLIGHTING RULE

HEW APPROPRIATIONS bill, including $815 million for NCI, was passed by the House before Congress adjourned for the Republican convention. The Senate will take it up when it reconvenes Aug. 23. The two bodies are still at odds over funds for abortions, and the President seems determined to veto the bill because it exceeds his budget request. A veto override is likely, but NCI probably will have to operate under interim financing for the first two-three months of the 1977 fiscal year. . . . **HAROLD ISARD**, Albert Einstein Medical Center and president of the American Thermographic Society, objected to the statement in ***The Cancer Letter*** July 30 which said, "Thermography and ultrasound techniques are still in the experimental stage and may also present risks." Isard wrote: "While theoretically there may be some question about diagnostic ultrasound, there is no basis whatsoever in assigning any risk to thermography. This procedure is merely a pictorial display of the invisible infrared emanation of the human body". . . . **NIH PLANS** to relax its regulations limiting moonlighting by NIH employees, regulations which have been ignored with increasing frequency anyway. MDs and dentists would be permitted to engage in private practice under the proposed new rules, and professional employees could consult, teach and lecture for fees, even at PHS contract and grant-assisted institutions, under certain circumstances. The rule relaxation will not apply to institute directors in most cases, so it will not help Frank Rauscher. The pay increase bill which would raise all NIH institute directors to $52,000 a year, along with the NIH director and assistant secretary for health, is ready for action by the House when Congress goes back to work.

RAUSCHER TO ASK CONGRESS' OK TO CUT CONSTRUCTION FUNDS TO $6 MILLION

(Continued from page 1)

grams, leaving just $6 million for construction. Most of that would go into renovation and upgrading of biohazard facilities.

NCI awarded $20 million for construction grants in 1976, and even that did not cover all those approved for funding by the National Cancer Advisory Board (see below).

Rauscher presented a breakdown of how he plans to distribute the $815 million. It included $136.9 million for regular research grants (the RO1 program), up from $129.9 million in 1976. That amount would permit funding of only 30-35% of approved competing grants (new grants and competing renewals). Last year, NCI was able to fund the top 60% of approved grants.

The fact that such a high percentage of approved grants were funded in 1976 is one reason why the squeeze is on new grants this year. The new and renewal grants in that 60% received three-year commitments, as did the approximately 50% that were funded the year before. Those commitments absorb the largest portion of the $136.9 million.

The other reason is that Congress did not appropriate enough money to fund a higher percentage. NCI had requested $845 million, which would have permitted funding about 45% of approved new and competing renewal grants.

Rauscher told the Panel that he plans to put the $10 million taken from construction, along with $1 million reprogrammed from his office (mostly from the Office of Cancer Communications and the International Cancer Research Data Bank), into other grant and contract programs. Some of it would go into regular research grants, perhaps as much as $5 million. That would lift the number funded up to 35-40%.

Program projects and center core grants might get some of that $11 million, research contracts the rest.

Rauscher has asked his division directors to trim their budgets by a total of $6.5 million to go into his reserve fund. If he gets authority from Congress to reprogram the construction money, he'll return the $6.5 million with instructions that it be used to fund new projects.

The breakdown of the 1977 budget totaled only $812 million, a figure NCI estimated it would get before the House and Senate agreed in conference on $815 million. Rauscher said that if NCI does in fact wind up with $815 million, $2 million will be turned over to NIH as NCI's contribution for a new radiation facility that will be constructed behind the Clinical Center, and $1 million will go into Cancer Research Emphasis Grants in the Diet & Nutrition Program. That would increase the program to about $7 million for 1977.

Rauscher pointed out that the big items in investigator-initiated research—regular research grants and program projects—will receive a total of $14 million more than in 1976 (not counting any portion of the reprogrammed $11 million). Program projects will get $93.7 million, compared with $87.6 million last year.

Thomas King, director of the Div. of Cancer Research Resources & Centers, said that his staff has made an effort to encourage those who "are prone to put their grant applications into program projects to have bona fide reasons" for doing so. Otherwise, they will be encouraged to submit RO1 applications.

Schmidt said, "Competition for RO1 grants will be more severe in 1977 than any other year since I've been connected with the Cancer Program. What it will take to be over the funding line will be more severe than ever. To encourage program project applicants to move into RO1 will only exacerbate the problem."

Schmidt agreed that program projects "should comprise a scientific package rather than an institutional package."

Schmidt said he agreed with Rauscher's plan to reprogram construction money. "At least there should be no basic construction support. Maybe incidental support, but to put up new buildings with this budget just is not feasible."

Here's how the budget distribution breaks down, comparing 1977 with 1976 spending (in millions):

Investigator Initiated Support	1976	1977
Regular Research Grants	$128.9	$136.8
Clinical Cooperative Groups	23.3	25.4
Program Projects	87.6	93.7
Radiation Development	4	4.2
Clinical Education	7.7	9
Research Career Program	3.2	3
Fellowships	13.4	18.2
Training Grants	4,8	1.8
Task Forces	14.1	14.3
Centers Core Support	38.5	42
Co-Initiated		
CREG	2.6	6.7
Research Contracts	115	118.8
NCI/NCP Initiated		
Research Support Contracts	93.7	94.1
Interagency Agreements	13	14
Other Resources		
Centers Planning Grants	2.8	2.9
Constructions Grants (before reprogramming)	20	16
Construction Contracts (NIH on campus, Frederick)	5	4
Non-Discretionary		
In-House Research	60.5	66.4
Management & Support	69.8	84
Cancer Control	54.2	56.6

NCI TO ASK $955 MILLION FOR 1978, BUT HEW SAYS $799 WILL BE ENOUGH

Every year since the first year of the second Nixon Administration (and the second year of the National Cancer Program), NCI has submitted its budget request knowing that it would have to rely on outside support to help get that request approved by Congress. The Administration in every case asked for a lesser amount, which Rauscher had to defend although admitting, when asked, that it wasn't enough.

It could be a different situation with the 1978 budget, with a possible change in Administrations coming up. NCI has submitted its request to the Office of Management & Budget, $955 million. HEW has recommended only $799 million, which could be the Administration's official request. OMB and President Ford will not present the final budget request until January (even if Ford is not reelected, or depending on what happened this week in Kansas City, renominated, he will submit the 1978 budget to Congress before the new President is inaugurated).

The $955 million would not solve all NCI's funding problems, but it would permit the paying of competing grants in the neighborhood of 50% of those approved, substantially increase other grant programs and revive the construction program.

There is no guarantee the situation would change with a new Administration. Democratic Candidate Jimmy Carter has been silent so far on most health issues, except for a rather general statement calling for national health insurance. Ronald Reagan has talked a lot about cutting federal expenditures, but when he was governor of California, social programs strongly supported by the legislature were increased in many cases.

Meanwhile, Rauscher and his staff have to proceed as if nothing will ever change.

Here's how the 1978 budget breaks down, based on $955 million, using the same categories shown in the previous article for the 1976 and 1977 budgets (dollars in millions):

	1978
Investigator Initiated	
Regular Research Grants	$166.4
Clinical Cooperative Groups	30.9
Program Projects	116.9
Radiation Development Program	5
Clinical Education Program	11
Research Career Program	3.6
Fellowships	21.7
Training Grants	.3
Task Forces	18.6
Cancer Centers Core Support	47.
Co-Initiated	
CREG	14.5
Research Contracts	132.3
NCI/NCP Initiated	
Research Support Contracts	105.3
Interagency Agreements	15
Other Resources	
Cancer Centers Planning Grants	2
Construction Grants	21
Construction Contracts	5
Non-Discretionary	
In-House Research	76
Management & Support	96.1
Cancer Control	66.4

NORTHWESTERN, ROCHESTER, HOWARD FIRST IN LINE FOR CONSTRUCTION FUNDS

First in line for construction funds from the fiscal 1977 budget are three universities whose applications were approved for funding with FY 1976 dollars but were left out when the construction program ran out of money before it got to them.

Northwestern Univ. will receive $900,000 to complete the $3.1 million grant it received. The Univ. of Rochester is due to get $1.8 million, but that project involves new construction, and NCI's appeal against the Administration's automatic denial of new construction funding is still pending. NCI has not yet lost such an appeal, backed by its authority in the Cancer Act and specific congressional directives. Howard Univ. will receive a supplemental award of $750,000.

If the construction program gets only $6 million, that would leave about $2.5 million to spread over all the rest, and it would not go far. Next in line presumably would be Stanford and Georgetown, whose applications were approved but not recommended for funding in 1976. Stanford's grant is $8.4 million, and Georgetown's is $4 million.

Then there are the pending applications which will be reviewed during FY 1977 and could be funded during the year if the money is available:

- St. Louis Univ., asking for $3 million.
- Michigan Cancer Foundation, $850,000.
- Harvard Medical School, $3 million (this would be NCI's contribution to a facility for recombinant DNA research).
- Univ. of Minnesota, $8 million.
- Yale Univ., $2 million.
- Stanford, $10 million for construction of a pion radiation facility.

Others have sent letters of intent, including Washington State Univ., seeking $3.5 million, and the Univ. of Pennsylvania.

OTHER INSTITUTES FARE WELL WITH '77 APPROPRIATIONS; NCI UP ONLY 6.9%

"If the other institute directors were here listening to us cry over a budget of $815 million, there wouldn't be a dry eye in the house."

That was Benno Schmidt's wry reference to the relative affluence of NCI compared with the rest of NIH. Next highest amount is that awarded to the National Heart & Lung Institute, $396.7 million, less than half of NCI's appropriation.

None of the institutes fared too badly, however, and most of them received percentage increases greater than NCI's. NCI led in the total dollar increase over 1976 with $52.4 million, but the percentage increase was only 6.9. Increases for other institutes ranged up to 54%, although that one, for the National Institute on Aging, involved a new institute still in the organization process.

Some established institutes received healthy increases. Environmental Health Sciences got a 30% increase, from $37.8 million to $49.1. The Eye Institute received a 27% increase, from $50 million to $64 million. The National Institute for Arthritis, Metabolism & Digestive Diseases got an increase of 16%, from $179.8 million to $209 million.

General Medical Sciences, which supports much basic research, got an increase of more than 9%. Lack of substantial increases for NIGMS have been blamed on the Cancer Program by critics who contend that all biomedical research, including cancer, have suffered as a result.

NIH as a whole will receive $2,530,778,000, which is $228.7 million more than in fiscal 1976. It is $365.7 million more than requested by the President.

	1976	1977	% Increase
NCI	$762.6	$815	6.9
Heart & Lung	370.3	396.7	7.1
Dental	51.4	55.6	8.1
Arthritis	179.8	209	16.2
Neurological	144.7	155.5	7.5
Allergy	127.2	141	10.9
General Medicine	187.4	205	9.4
Child Health	136.6	145.5	6.6
Aging	19.4	30	54.7
Eye	50.3	64	27.3
Environmental	37.8	49.1	30.1
Research Resources	130.3	137.5	5.5
Fogarty International Center	5.7	8	40.4
Library	29.2	35.2	22.5

(Various overhead and Office of Director budgets account for the differences between these totals and totals cited above.)

PROBLEMS OF CENTERS GET INCREASING ATTENTION FROM NCI STAFF, ADVISERS

Present and anticipated problems which are or will be complicating the lives of cancer center directors and NCI staff involved in the Cancer Centers Program are thrusting themselves with increasing frequency into the deliberations of NCI executives and their advisers.

NCI has set up an intrainstitute committee to help deal with some of the problems. The committee is meeting weekly and plans to submit a report to Director Frank Rauscher in October with recommendations, the most important of which probably will relate to the question of whether or not a new category of centers should be developed.

Thomas King, director of the Div. of Cancer Research Resources & Centers, described the committee's activities at last week's meeting of the National Cancer Advisory Board Subcommittee on Centers.

The committee consists of Vincent DeVita, director of the Div. of Cancer Treatment; Irvin Plough, from the Div. of Biology & Diagnosis; Robert DePue, Div. of Cause & Prevention; John McShulskis, Div. of Control & Rehabilitation; Gregory O'Conor, Office of International Affairs; Jacqueline Parkman, Office of Program Planning & Analysis; Norma Golumbic, Office of Cancer Communications; and Robert Namovicz, Office of Administrative Management.

Among the subjects being discussed by the committee are:

- Definition and types of cancer centers.
- The responsibility of NCI to cancer centers and the responsibility of centers to NCI.
- The location and regional responsibility of cancer centers.
- The goals of centers as program, resource or funding mechanisms.
- The organization locale of the Cancer Centers Program within NCI and the relationship of this program to other NCI components.

That's one of the current efforts under way to tackle problems relating to centers. Another is being made by the Assn. of American Cancer Institutes, which approved a resolution at its meeting last June calling for regular meetings with NCI to discuss problems of centers.

NCI agreed, and arranged for representatives of AACI to meet with the intrainstitute committee this week. Items scheduled for the agenda included:

- What can a cancer center accomplish with core support that cannot be done through other funding mechanisms?
- How do cancer centers become involved and function in the National Cancer Program?
- How does a cancer center coordinate research and other activities within a center funded by a variety of mechanisms?
- What should be the relationship of the Cancer Centers Program to NCI components?

Still another approach to resolving some of the questions and also to help the centers in the development and management of their programs and in their dealings with NCI is a meeting of center directors and NCI staff, scheduled for Oct. 25-27 in Naples, Fla.

The agenda for that meeting offers an indication of the types of problems encountered by centers and also of the assistance NCI is offering. The first day will include presentations on:

Preparation, components and guidelines for a cancer center core grant.

Geographic distribution and regional representation for a cancer center.

Health Systems Agencies—impact on a cancer center.

Analytical support contract—contractor and work to be accomplished.

Cancer center profiles.

Minimum cancer data base—statistical analysis & quality control center.

The second day's agenda will include discussions of:

Position of cancer centers in the National Cancer Program, particularly in relation to the budget.

Interrelationships of departments of oncology to cancer centers and institutions.

Cancer clinical education.

Comprehensive personal patient history form for oncology.

Patient referrals and cancer centers.

The meeting will close on the third day with presentations on:

Relationship of clinical trials to cancer centers.

Relationships of other NCI divisions to cancer centers.

Concurrently on Wednesday, Leo Buscher, chief of the grants administration branch in DCRRC, will conduct workshops on grants and contracts management.

THE "LOCALE" of the Cancer Centers Program within NCI, one of the subjects under discussion by the intrainstitute committee, is an issue which has surfaced recently among some NCI staff members.

A few NCI executives, probably no more than two or three at the moment, are advocating removal of the centers program from DCRRC. They feel it would get more firm direction and offer better coordination with other NCI programs and divisions if it were run out of the Office of the Director.

That suggestion will be greeted with considerable coolness from center directors and investigators. One thing they don't want is a greater degree of direction from NCI. They feel that if any more coordination is necessary, that could be worked out without moving the program.

DCRRC is the division which manages most investigator initiated research for NCI, all of it through the grants mechanism. It manages the education programs—fellowships, clinical education, training grants, research career awards—also funded through grants.

Until last year, DCRRC housed the Clinical Cooperative Groups, which were moved into the Div. of Cancer Treatment in a major effort to streamline and coordinate.

Center executives and their investigators are close to unanimous in their feeling that investigator-initiated research and local initiation of center development would be more likely to flourish under DCRRC than anywhere else.

This is an issue that, if pressed, will make the struggles over consolidation of treatment programs seem trivial by comparison.

DEFINITION OF CENTERS and their locale and responsibilities are issues arising out of the recommendations of former Centers Program Director Simeon Cantril (*The Cancer Letter*, July 2). Cantril suggested that a new category, regional cancer centers, be established to provide centers of excellence for treatment, diagnosis and outreach, including clinical research, clinical education and training. These would "fill in the gaps" between the comprehensive centers, assuming that it will be a long time, if ever, before fullscale comprehensive centers would be established in every geographical region across the U.S.

Cantril, a majority of NCI staff including Rauscher, and others feel the intent of Congress in authorizing development of comprehensive cancer centers was to bring the best facilities for diagnosis and treatment of cancer closer to the people who need them. The requirement for basic research was added on by NCAB.

Cantril also suggested that community and specialized centers be recognized as categories but that no position should be taken as to designation, location and numbers. Most community centers probably would not request NCI support, Cantril said; those that do should be reviewed on the basis of merit. Specialized centers also should be supported on the basis of competitive peer review.

The NCAB Subcommittee on Centers discussed Cantril's recommendations and raised some questions about them. Werner Henle expressed concern about the potential budgetary impact of designating regional centers. Subcommittee Chairman Denman Hammond commented that a major interest of Congress, as expressed in the National Cancer Act, was to identify cancer centers which have excellence in diagnosis and treatment, regardless of whether or not they fulfill the entire set of stringent criteria for comprehensive centers. Hammond suggested that making information more readily available about such diagnostic and treatment centers might be accomplished without increases in budget.

Jonathan Rhoads, NCAB Chairman, pointed out that the American College of Surgeons has a Commission on Cancer to evaluate the cancer programs at hospitals. Andrew Mayer, assistant director for professional activities in cancer for the American College of Surgeons explained the Commission on Cancer program at last week's meeting of the subcommittee.

The Commission on Cancer has approved the cancer programs of 750 hospitals which, Mayer said, treat from 55-60% of all cancer patients in the U.S.

The requirements for approval by the commission would appear to place a hospital in the category of a "regional" center as far as treatment and diagnosis, education, and clinical research are concerned. The requirements do not include community outreach, one of the major functions of a comprehensive center and of Cantril's proposed regional center.

"We've had bad experiences with regional pro-

grams," Mayer said, mostly with the Regional Medical Programs. Many hospitals had no interest in developing anything on their own. They came to the government to get money. Our philosophy is that each hospital should take care of its cancer program without asking the federal government for a dime."

The commission evaluates programs for hospitals in three categories, with separate requirements for each.

Basic requirements for all categories:

1. Accreditation by the Joint Commission on Accreditation of Hospitals, or certification of non-hospital medical institutions by their state or county medical societies.

2. A multidisciplinary cancer committee which is responsible for the following:

(a) A functioning cancer registry with periodic reports to the hospital staff.

(b) Multidisciplinary educational cancer conferences.

(c) Consultation services.

(d) A system for quality-of-care evaluation with documentation of its operation:

Each approved institution shall obtain or generate criteria concerning diagnosis, broad concepts of treatment, followup and rehabilitation of patients with neoplasms according to site.

It shall be the responsibility of the cancer committee to assure that patient care conforms to the above criteria.

Additional requirements as related to each category:

Category I

1. Full facilities and personnel with the institution for diagnosis and treatment of cancer in all major anatomical sites; OR

The same requirements as above, with the following acceptable exceptions:

(a) Consultation from and referral to another institution, within the same community, for diagnosis and treatment of patients with cancer of a limited number of anatomical sites; e.g., eye, central nervous system, etc.

(b) Consultation from and referral to another institution, within the same community, for patients requiring special diagnostic techniques and/or modalities of therapy; e.g., diagnostic procedures in nuclear medicine, megavoltage radiation therapy, etc.

2. Three hundred or more new cancer patients registered annually, exclusive of those with squamous and basal cell cancer of the skin.

3. Either residency training in most of the major medical specialties related to diagnosis and treatment of cancer, which must include at least the specialties of general surgery, internal medicine, gynecology, pathology, and diagnostic radiology, or a program of postgraduate training in oncology.

4. Research in cancer being conducted, basic and/or clinical, with documentation.

Category II

1. Facilities and personnel for diagnosis and treatment of cancer, excepting some major anatomical sites, and documented structured use of qualified consultation from and referral to another institution for diagnosis and treatment of cancer.

2. Three hundred or more new cancer patients registered annually, exclusive of those with squamous and basal cell cancer of the skin.

3. Residency training in the medical specialties related to diagnosis and treatment of cancer is optional.

4. Research in cancer, basic and/or clinical, is optional.

Category III

1. Facilities and personnel for diagnosis and treatment of cancer, excepting some major anatomical sites, and documented structured use of qualified consultation and referral to another institution for diagnosis and treatment of cancer.

2. Less than 300 new cancer patients registered annually, exclusive of those with squamous and basal cell cancer of the skin.

3. Residency training and research in cancer are optional.

Category S (Special)

1. Institutions having full facilities and personnel, excluding megavoltage radiation therapy, for diagnosis and treatment of (a) specific types of cancer, (b) cancer in specific age groups, or (c) other selective groups.

2. Hospitals for treatment of special diseases other than cancer, e.g., psychiatric institutions, tuberculosis hospitals, EENT hospitals, orthopedic hospitals, etc., with documented structured use of qualified consultation from and referral to another institution for diagnosis and treatment of cancer.

3. Clinics, i.e., non-hospital medical institutions that are certified by their county or state medical societies.

THE ADVENT OF HSA's could present cancer centers with their most troublesome problems of the future. These are local and regional planning agencies, controlled by non-professional appointees (although including health professions representation) which will have authority to review and approve or disapprove a wide variety of health related projects proposed for their respective areas. Projects disapproved would go up the chain on appeal, eventually reaching the HEW secretary.

This could delay for months or years implementation of cancer programs center grants, research grants and contracts, equipment purchase, and especially construction. "It could be an intolerable situation," Benno Schmidt said.

NIH, with prodding from NCI, is attempting to get some exclusions in the regulations which might exempt some biomedical research activities. NIH Director Donald Fredrickson has proposed that a state-

ment be inserted in the regulations which state that "Projects which would require HSA review and approval would include only those which clearly have direct and significant impact (though secondarily intended) on the health care delivery system in the local community. All other projects of national biomedical and behavioral research programs would be excluded from HSA review."

Construction, core grants and cancer control were cancer programs which, even with Fredrickson's modifier, might require HSA approval.

Hammond pointed out that a single comprehensive center might encounter a number of HSA's within its region, and find that it must secure the approval of several or all of them for a project. There are now about 100 HSAs, with an eventual total expected of 212.

NCAB Member Gerald Murphy pointed out that HSAs will not become operational before the end of the year and that so far they have not been adequately funded. The act authorizing them comes up for renewal next year, and certain exclusions might be sought for cancer programs.

THE GAO REPORT which criticized various aspects of the recognition and development of comprehensive cancer centers (***The Cancer Letter,*** March 26) has generated a response from HEW and NCI.

GAO had recommended that NCI should decide on specific factors that will be used to determine locations of comprehensive centers, "balancing the need for geographic distribution" with other factors. HEW responded:

"We concur. NCI will determine, to the extent possible, the specific factors that will be used in determining the locations of comprehensive cancer centers and will report to the appropriate congressional committees on the effect these factors will have on locations as well as the feasibility of achieving appropriate geographic distribution."

GAO recommended that NCI review multiinstitutional centers to assure that they develop into single comprehensive centers and act as single focal points for their areas.

NCI objected. "We do not completely agree that all existing and further multiinstitutional centers should develop into single centers. We feel that each local area is different and each center should be treated as a separate entity."

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 indicated.

RFP NCI-CB-74110-S

Title: *Studies and investigations on occult breast cancer metastases in axillary lymph nodes*
Deadline: *Dec. 20*

Institutions having the capabilities to carry out a research and development program in conducting studies: 1) to determine the relative frequency of occult metastases in axillary lymph nodes which were initially diagnosed as negative for breast cancer metastases and 2) to determine whether the presence of occult metastases correlates with treatment failure.

The study design should combine biostatistical, histologic and clinical approaches. The availability of lymph node tissue for restudy and of long-term survival and follow-up data is essential. Interested organizations should be able to complete the study and statistical analyses in approximately two years.

Contracting Officer: P.J. Webb
Biology & Diagnosis
301-496-5565

RFP NCI-CM-67118W

Title: *Liposomal encapsulation of antitumor agents*
Deadline: *Approximately Oct. 29*

The Experimental Therapeutics Program, Div. of Cancer Treatment, NCI, has a requirement for an investigation of several aspects of the pharmacologic, toxicologic and therapeutic properties of liposome-encapsulated antitumor agents. Agents to be studied are limited to methotrexate, cytosine arabinoside, adriamycin, cis-dichlorodiammine platinum, melphalan, and vincristine.

Initial studies will be performed to develop techniques for the production of liposomes homogeneous with regard to size and composition, and to assess chemical stability under conditions of storage. Subsequent studies will be performed on the physiological disposition of liposomes in normal and tumor-bearing animals prior to drug encapsulation with an assessment of the effect of variations in liposome chemical composition, surface charge and particle size on physiologic disposition. In vitro studies will be performed on the effects of chemical composition, surface charge and particle size of liposomes on their affinity for, uptake by, and interaction with normal cells and with various tumor cells. Tumors for above studies will include ascitic P388, leukemia L1210, Lewis lung carcinoma, B16 melanocarcinoma, C3H mammary adenocarcinoma and/or the Ridgeway osteosarcoma and including selected resistant variants

of these tumors. Light and electron-microscopic examination of tissue and cells exposed to liposomes will be performed.

In above studies, dose-response relationships will be established for each liposome-encapsulated drug, as well as its optimal route of administration (i.p. or i.v.) and dosage schedule. The acute toxicity of the liposome-encapsulated antitumor agents will be assessed and compared to that of non-encapsulated agents in normal and tumor-bearing animals.

It is anticipated that two awards will be made and that each contract will require approximately six technical man years of effort per year; however, the number and level of effort of any contracts awarded will be at the discretion of the government. It is estimated that three years will be required to complete these studies.

Contract Specialist: Stephen Gane
Cancer Treatment
301-427-7463

RFP NO1-CO-65351-08

Title: *National Cancer Program information clearinghouse and allied services*
Deadline: *Approximately Oct. 20*

The Office of Cancer Communications of NCI is soliciting proposals for support of NCI's effort in public information, public education, patient education and limited areas (dissemination and information referral) of professional information. This shall include the performance of tasks that involve acquiring, cataloging, operating storage/retrieval systems and assisting in the development of public information, educational products and services. The overall effort will involve a complex of informational analyses and technical support.

RFP NO1-CO-65360-08

Title: *Cancer Communications Program support*
Deadline: *Approximately Oct. 20*

The Office of Cancer Communications is soliciting proposals for a firm to provide communications services to support its efforts to carry out its mandate to motivate the public to decrease their risk of cancer and increase their chances of recovery from cancer through the use of communications techniques. Program emphasis shall be through the use of "access" groups; that is, to reach large numbers of people through intermediary organizations. This is not a mass media program.

Contracting Officer for above two RFPs: John Campbell
Control & Rehabilitation
301-427-7984

RFP NCI-CB-74096-35

Title: *Immunologic markers applicable to cytology automation*
Deadline: *Dec. 1*

Explore and characterize the antigens of normal, premalignant and malignant human cells of types that are currently evaluated by manual cytologic techniques for the present of premalignant and malignant changes. Qualitative and/or quantitative antigenic changes in premalignant and malignant cells which would allow discrimination from normal cells will be identified and characterized. The specificity and sensitivity of these changes will be evaluated with promising antigens. Assays should then be developed for application to human clinical cytology specimens.

RFP NCI-CB-74095-35

Title: *Development of new methods of single cell separation*
Deadline: *Dec. 1*

Develop and test new approaches to the separation and isolation of individual cells based on single cell parametric measurements such as implemented in flow microfluorimetric systems. These new approaches to sorting should provide both high purity and maximum yield of isolation of identified subpopulations of individual cells. Bulk separation procedures are not sought in this request. The sensing system and sensed parameters may be either commercially available designs or novel designs developed by the proposer. The principal objective of this project, more reliable association of individual separated cells with specific quantitative measurements, must be the prime determinant of overall system design.

Contract Specialist for above two RFPs: C.V. Baker
Biology & Diagnosis
301-496-5565

CONTRACT AWARDS

Title: Can-Dial public information system
Contractor: Roswell Park, $113,988.

Title: Production and maintenance of germfree animals
Contractor: Life Sciences Inc., $379,975.

Title: DNA-RNA viral interactions in oncogenesis
Contractor: Life Sciences Inc., $291,770.

Title: Study of chemical carcinogenesis and immunology
Contractor: Ohio State Univ., $390,900.

Title: Identification and purification of endoglycosidases
Contractor: State Univ. of New York, $45,103.

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