THE CANCER LETTER

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PRESIDENT'S BUDGET TAKES CARE OF R01s, P01s, FATTENS UP NTP, DEVASTATES CONSTRUCTION GRANTS

President Carter's budget request for NCI and the National Cancer Program which he submitted to Congress this week along with the rest of the 1981 fiscal year budget offers virtually the same amount of money NCI is getting this year, as previously reported (*The Cancer Letter*, Dec. 14).

The level budget would mean, if Congress does not add substantially

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In Brief

RALL SAYS HE'LL RETURN MONEY TO NCI IF THERE IS ANY LEFT; OMB RELEASES 28 POSITIONS FOR NTP

DAVID RALL, director of the National Toxicology Program, on NCI's suggestion that part of the $45 million NCI is giving the program this year be returned (*The Cancer Letter*, Jan. 18): "We'll take a look at the budget at about May. If it looks as if we will have any money left over, we will be glad to return it to NCI." The Office of Management & Budget has decided to go along with the congressional request of 28 additional positions for NTP, and Rall and his staff have started recruiting people for those slots. . . . **SUBCOMMITTEE MARKUP** of S. 988, Sen. Kennedy's biomedical research authorization bill, was postponed again last week because of the demands of Kennedy's presidential campaign. The Health Subcommittee staff now will try to work it in before the New Hampshire primary. . . . **HOUSE BILL** on biomedical research authorizations, including the Cancer Act, may be ready for Congressman Henry Waxman to introduce next week. Waxman plans to hold three days of hearings on the measure before his Health Subcommittee about the end of February. . . . **NEW CORE** grant guidelines are now top priority of NCI's Cancer Centers Program staff. Acting Program Director William Terry told members of the Assn. of American Cancer Institutes that they should be ready for presentation to the National Cancer Advisory Board at its May meeting. "There clearly are areas we have to tighten up," Terry said. "We may not be able to continue stimulating development of new centers. Or if we talk about new centers coming in, old ones may have to go out". . . . **HYPERTHERMIA RESEARCH** seminar will be conducted March 24 by the Clinical Cancer Program Project Review Committee. It will start at 4 p.m. in conference room 6 of NIH building 31. . . . **THOMAS CORBETT** has been appointed head of the new Solid Tumor Biology & Treatment Div. of Southern Research Institute. . . . **RUSH CANCER** Center will sponsor a symposium on "Hormone Manipulation in the Therapy of Human Malignant Disease" in Chicago April 15-16 as a special tribute to Samuel Taylor III, first director of the Section of Medical Oncology at Rush Medical College. Contact Harold Paul, Rush Medical College, 600 S. Paulina, Chicago 60612, phone 312-942-6917.

NATIONAL CANCER INSTITUTE
1981 PRESIDENTIAL BUDGET BY MECHANISM (IN THOUSANDS OF DOLLARS)

	1979	1980	1981	'80-'81 % Change
GROUP I – Investigator Initiated				
Regular Research Grants	$188,488	$206,411	$228,981	+10.9%
Clinical Cooperative Groups	32,021	35,534	32,847	– 7.6
Program Projects	93,953	98,655	101,532	+ 2.9
Clinical Education Program	11,404	10,904	10,000	– 8.3
Research Career Program	4,771	4,283	4,000	– 6.6
Fellowships	20,139	27,114	22,657	–16.5
Organ Site	17,032	17,261	16,500	– 4.4
Cancer Centers – Core Support	64,364	66,435	66,435	=
Subtotal	**$432,172**	**$466,597**	**$482,952**	**+ 3.5%**
GROUP II – Co-Initiated				
Cancer Research Emphasis Grants (CREG)	7,894	6,941	3,903	–43.8
Research Contracts	81,119	75,280	66,802	–11.3
Subtotal	**$ 89,013**	**$ 82,221**	**$ 70,705**	**–14.0%**
GROUP III – NCI/NCP Initiated				
Research Support Contracts	131,502	147,002	163,604	+11.3
Interagency Agreements	18,384	21,118	18,321	–13.2
Subtotal	**$149,886**	**$168,120**	**$181,925**	**+ 8.2%**
GROUP IV – Other Resources				
Planning Grants	271	200	200	=
CCPDS				
Construction Grants	12,452	11,000	1,000	–90.9
Construction Contracts	4,878	4,000	2,000	–50.0
Subtotal	**$ 17,601**	**$ 15,200**	**$ 3,200**	**–78.9%**
In-House Research	89,893	102,487	104,020	+ 1.5
Management & Support	90,463	100,373	104,430	+ 4.0
(NIH Management Fund)	(35,662)	(38,076)	(39,913)	(+ 4.8)
Cancer Control (Grants & Contracts)	66,904	65,804	60,568	– 8.0
Subtotal	**$248,024**	**$268,664**	**$269,018**	**+ 0.1%**
TOTAL NCI	**$935,931**	**$1,000,802**	**$1,007,800**	**+ 0.7%**

CONTROL, COOPERATIVE GROUPS SLASHED IN BUDGET; CENTERS AGONY CONTINUES

(Continued from page 1)

to it, that the Cancer Program would suffer a 10-15% reduction in real spending power with continued inflation. Some categories—notably traditional research and program project grants—would be protected from the inflation factor with increases substantial enough to fund approximately the same number of grants as in the current year.

One program—the National Toxicology Program—would be the beneficiary of a whopping increase.

Some programs would be devastated.

RESEARCH PROJECT GRANTS

NCI includes the traditional (R01), program project (P01) and young investigator (R-23) grants in this category. At the figures in this budget, NCI expects to be able to fund 31% of approved competing new and renewal research project grants. The total number of competing grants would be 735, the same as in 1980.

The budget has $229 million for R01s, up nearly 11% over the $206.4 million in 1980. Program projects would get $101.5 million, up nearly 3% over the $98.7 million this year.

NATIONAL TOXICOLOGY PROGRAM

NCI's contribution to NTP under this budget would jump $20 million to a total of $65 million. The extra $20 million would permit the addition of 100 new chemicals into the testing program. NTP's total budget would be $75 million, with contributions from the Food & Drug Administration, National Institute of Environmental Health Sciences and National Institute of Occupational Safety & Health now becoming relatively insignificant.

NTP was initiated a little over a year ago, with a first year budget of about $25 million, $22 million of that from NCI. That jumped to $50 million during the current year, with $45 million from NCI, when the House Appropriations Committee directed that an additional $23 million be transferred from the NCI budget.

CONSTRUCTION

NCI assistance in the construction of cancer research facilities in the form of construction grants will be virtually wiped out if the President's budget is not modified. From $11 million in the 1980 fiscal year, construction grant awards in 1981 would be limited to $1 million. Another $2 million is shown for construction contracts, but that will go for work at Frederick Cancer Research Center and the Naval

1981 PRESIDENTIAL BUDGET BY ACTIVITY (IN THOUSANDS OF DOLLARS)

	1979		1980		INCREASES		1981		'80-'81
	POS.	AMOUNT	POS.	AMOUNT	POS.	AMOUNT	POS.	AMOUNT	% Change
I. RESEARCH									
Cause & Prevention	701	$261,907	723	$289,423	+9	$24,122	732	$313,545	+ 8.3%
Detection & Diagnosis	208	55,944	205	57,342		454	205	57,796	+ 0.8
Treatment	609	297,513	603	314,631		3,787	603	318,418	+ 1.2
Cancer Biology	399	127,518	395	141,236		1,596	395	142,832	+ 1.1
Subtotal	**1,917**	**$742,882**	**1,926**	**$802,632**	**+ 9**	**$29,959**	**1,935**	**$832,591**	**+ 3.7**
II. RESOURCES DEVELOPMENT									
Cancer Centers Support	23	65,809	22	68,144		227	22	68,371	+ 0.3
Manpower Development	17	37,746	17	43,752		- 5,962	17	37,790	–13.6
Construction	14	18,218	14	15,926		- 11,985	14	3,941	–75.3
Subtotal	**54**	**$121,771**	**53**	**$127,822**		**$- 17,720**	**53**	**$110,102**	**–13.9**
III. CANCER CONTROL	80	71,276	80	70,348	– 2	- 5,241	78	65,107	– 7.5
TOTAL NCI	**2,051**	**$935,931**	**2,059**	**$1,000,802**	**+ 7**	**$ 6,998**	**2,066**	**$1,007,800**	**+ 0.7%**

Some of the figures shown in the table above, the budget by activity, may differ from those in the mechanism budget on page 2. The activity table includes NCI staff salaries, prorated share of the NIH management fund and other overhead—figures broken out and shown separately in the mechanism table.

Medical Center at Bethesda, where NCI is developing a clinical research program.

Only last May, the National Cancer Advisory Board responded to a survey of national construction needs by asking the NCI director to budget $20 million a year for the next five years for construction grants. The Board's resolution also suggested that if Congress did not provide that amount each year, the director should reprogram funds from other areas to make up the difference. That did not happen this year, and the recommendation has been totally ignored for 1981.

The survey asked the question: How much money will be needed to bring your animal facilities, research and clinical labs up to federal standards for animal care and biohazard containment and state and local codes? Responses were discounted by half to account for local contribution to construction costs, and again to take into consideration the historial percentage of construction grants approved and awarded. The resulting figure was about $150 million, so the $20 million a year for five years still would not be sufficient.

CANCER CENTER CORE SUPPORT

Cancer center executives were more than perturbed when it dawned on them late in 1979 that the FY 1980 budget of $66.4 million for center core grants, the same figure in that category for FY 1979, would not permit funding of competing new and renewals at study section recommended levels. They have been agonizing over the "7 percent and 50 percent solutions" ever since.

Their agony has only begun. The 1981 budget has the identical figure again, but this time, the shortfall could be horrendous. There will be about 25 core grants up for renewal, almost twice as many as in 1980. The "50 percent solution" (funding of renewals at only 50 percent of the increases recommended by peer review) probably could not be applied due to lack of funds. There might not even be enough for the "seven percent" solution" current levels plus seven percent).

CANCER CONTROL

The $5 million cut in cancer control funds possibly could be squeezed out of some programs that are ending or winding down. The Breast Cancer Detection Demonstration Program is entering the follow-up phase, with considerable reduction in costs, and there are others winding down. A big one which could be a target of cost cutting: the Community Based Cancer Control Program, with the six contractors currently or recently undergoing merit review. Some have been intensely criticized by the review teams, and at least one or two may be candidates for early termination.

The $5 million cut does not tell the entire story of the pressures on the program. NCI will be obliged to undertake several new initiatives in prevention, including smoking, which will be assigned to the control division.

The new Community Hospital Oncology Program will not be a victim of the cost cutting, as some have feared. The proposals have been through the first round of review, and the division intends to proceed with negotiations and further review. Budget restrictions could result in some stretching out of the program and delays in making some awards, but CHOP will stay alive.

COOPERATIVE GROUPS

With about 6,000 participating clinicians, most of whom receive little or no pay, the Groups have been restive with level budgets. A cut of $2.7 million, which would be the first reduction in the program since the groups were moved under the Div. of Cancer Treatment umbrella five years ago, will not be kindly received.

How the cut would be applied remains to be determined. A substantial number of Group grants will

be up for renewal in FY 1981, and the cuts could be spread among them. Other reductions could be made here and there.

OTHER REDUCTIONS

Manpower development incurred a sharp reduction of nearly $6 million, the bulk of it coming from fellowships. Organ site programs also were cut, although not as severely, losing about $700,000.

Research contracts continued to drop, going from over $75 million in 1980 to $66.8 million. Cancer Research Emphasis Grants drop by $3 million as use of that mechanism is phased out.

BIOLOGICAL RESPONSE MODIFIERS

NCI is spending about $34 million on biological response modifiers in FY 1980, including the $13.5 million earmarked by Congress which is going largely for interferon purchase and other initial outlays in a stepped up effort. There are about $20 million in grants related to this area of research. NCI plans to continue at approximately the same level in FY 1981, with more money going into clinical research and other grants in areas recommended by the Mihich committee.

Cancer Program constituents have not paid much attention to the President's budget in recent years, counting on Congress to rescue them with hefty increases. That worked when NCI had the flexibility to allocate the additional money as it saw fit. It did not work with the 1981 appropriations because of the earmarkings by the House, which directed most of the extra money into specific programs. NCI has felt obliged to follow the House instructions, for the most part.

Advocates of increased support for R01s, biological response modifiers, and carcinogenesis testing did all right because they sold the appropriations committees on the value of their programs. Others who feel their programs are underfunded in the 1981 budget should make their moves now and not wait until after Congress has acted.

REQUEST FOR RESEARCH GRANT APPLICATIONS

RFA NIH-NCI-DCRRC-RMB-80-2

Title: *Training program in veterinary pathology and comparative pathology*

Application receipt date: *April 1*

NCI, in the interests of itself, the Environmental Protection Agency, the National Institute of Environmental Health Sciences, and other federal agencies, announces a new three year residency training program for veterinary pathologists. Responses are invited from institutions which have, or which are able to develop, veterinary pathology residency program capabilities or comparative pathology programs. A limited number of awards (not to exceed 10) will be made. The purpose of these awards will be to double the annual production of board-certifiable veterinary pathologists within five years, and other wise to increase the national pool of comparative pathologists.

This program is expected to:

–Encourage qualified candidates to choose careers in veterinary pathology or comparative pathology, biomedical specialties of increasing importance to both government and industry which presently are characterized by severe manpower shortages.

–Encourage qualified institutions to expand training opportunities for veterinary pathologists and comparative pathologists desirous of developing greater competence in recognizing and interpreting structural and functional biological abnormalities.

–Create a pool of highly qualified general veterinary pathologists and comparative pathologists whose services are badly needed in federal programs intended to identify, monitor and characterize environmental carcinogens and other toxic substances.

Recent years have seen an increasing awareness of the dangers of environmental pollutants. In response to these dangers, large testing and monitoring programs have been organized by many agencies of government, both local and federal. The veterinary pathologist is a key member of the teams engaged in those efforts. There is a severe shortage of these specialists. It has been estimated that several hundred vacancies exist in this disciplinary area. At the same time, the annual production of veterinary pathologists is about 35 each year. There is an urgent need for additional well trained veterinary pathologists and comparative pathologists to fill this void. Those who complete the veterinary pathology training program and who contemplate research careers would be well prepared to undertake postdoctoral research training via the National Research Service Act research fellowships and traineeships.

The veterinary pathology training program will encompass a three year period of residency training which could, but which need not, culminate in a degree. Training leading to specialization in either anatomic or clinical pathology or a combination thereof would be acceptable. The program could be weighted toward one or the other specialty, but there should be a common core of course work and experience. This core should be sound training in structural (including ultrastructural) and functional pathology. Course work would consist of advanced biomedical courses, including epidemiology and biostatistics, the pathobiology of cancer, toxicology and environmental sciences. Laboratory experience should provide training in the techniques and interpretation of tests.

Practical experience in diagnostic pathology should be provided through autopsies, histopathologic examinations, and clinical pathology studies.Trainees should gain broad experience in comparative pathology by doing thorough postmortem examinations of a variety of animal species. Because most of the people who complete the program will participate in testing and monitoring activities in federal and local

governmental agencies or elsewhere, trainees should be exposed to research methods and writing preferably by doing a minor research project. They should also be afforded a chance to develop administrative skills, such as those required to manage a clinical pathology laboratory.

Training programs should be located within or near large biomedical institutions. A general medical library containing the major journals and books covering the field of medicine should be accessible. Necropsy facilities should be adequate to handle a variety of animal species. Adequate laboratories support should be available, including facilities for photomicrography, electron microscopy, and toxicology support as well as the more usual facilities. An organized and usable collection of case records, tissue sections and other materials from a variety of diseases and animal species should be available. Each trainee should be provided an adequate study area and necessary equipment to conduct his studies.

At least one member of the training staff must be an ACVP diplomate. While it is recognized that individuals can be adequately trained by one pathologist, the breadth of veterinary pathology suggests that the training staff should consist of a number of qualified pathologists of diverse interests and experience. Such a staff allows the trainee to be exposed to a variety of opinions and philosophies. As important as the number of staff members is the relationship between trainee and supervisor. Trainees should be personally and closely supervised by the advisor. Thus, it is doubtful that one instructor should supervise more than two or three trainees.

Trainees must:

1. Be citizens or noncitizen nationals of the U.S. or its possessions or territories or must have been lawfully admitted to the U.S. for permanent residence at the time of application.

2. Hold a DVM degree, an MD degree or PhD degree. Only holders of the DVM will be eligible for board certification as veterinary pathologists.

3. Be selected on a competitive basis.

4. Be frequently evaluated during the course of training to monitor progress.

5. Before beginning training, indicate their intention of working as comparative or veterinary pathologists in federal agencies or in other nonprofit public or private institutions.

Program directors should be prepared to inform NCI, upon request, of subsequent career patterns of trainees.

Awards will be made to up to 10 institutions competitively determined to have the best capability for training veterinary pathologists and comparative pathologists. Applicants need not be schools of veterinary medicine.

Each grant will be for a maximum project period of five years and will underwrite the cost of a three-year residency training program for up to four trainees in each year's class. A second five year project period may be awarded competitively. Research experience, including industrial research, teaching internship, and residency, may be considered relevant experience in determining stipend levels, as follows:

Years of Relevant Experience	Stipend
0	$13,380
1	14,040
2	14,736
3	15,468
4	16,236
5	17,040

Upon request, nonfederal sponsoring institutions receive an institutional allowance of up to $5,000 per annum for each trainee's tuition, fees, and related costs, such as research supplies and equipment, travel to scientific meetings, and medical insurance. As a one-time expense, each grantee institution may upon request be furnished money for a reasonable amount of nonexpendable equipment for trainee use. Indirect costs will be eight percent of total direct costs or actual indirect costs, whichever is the lesser.

The start date for all programs will be Sept. 1, 1980. As many as 10 proposals may be funded, but only if they are judged by the reviewers to be of high quality. Sufficient money has been set aside to accommodate that many awards.

All applications received as a result of this announcement will be reviewed in April 1980, for technical merit by the NCI Cancer Research Manpower Review Committee whose membership will be supplemented with ad hoc experts in veterinary and comparative pathology. They will be reviewed by the National Cancer Advisory Board at its meeting in May 1980. Awards will be made before Sept. 1, 1980.

Criteria for review include:

1. The proposed faculty's potential for training postdoctoral students in veterinary or comparative pathology.

2. The quality of the training resources and training environment.

3. The merits of the proposed training plan.

4. The inclusion in the training plan of courses in oncology/cancer biology, environmental sciences, toxicology, testing procedures, and research methodology.

5. The plan to follow up on subsequent career patterns of trainees.

Applicants should use form PHS 6025 in applying for these grants. If this form is not available, it may be obtained from the Grants Inquiries Office, Div. of Research Grants, National Institutes of Health, Bethesda, Md. 20205. Type the words "NCI Veterinary/Comparative Pathology Program" on the top part of the face page of PHS 6025. Send the original and 10 copies to the Div. of Research Grants, NIH, Room 240, Westwood Bldg., Bethesda, Md. 20205 and 15 copies to:

Barney C. Lepovetsky, PhD, JD
National Cancer Institute
Room 10A18, Westwood Building
Bethesda, Md. 20205
Telephone 301-496-7803

PROGRAM ANNOUNCEMENTS

Title: *Experimental research related to mammographic screening for human breast cancer*

The Breast Cancer Program of NCI is inviting grant applications for the purpose of encouraging animal and tissue culture studies that will provide new and relevant information on the problems related to mammographic screening for human breast cancer.

Radiation-induced risk for cancer of the breast in humans has received considerable publicity since 1976. This controversial issue remains unsettled, and one major problem is the need for better data from fractionated low dose, low LET studies that would be comparable to the exposure from x-ray mammography. A number of years ago it was found that women exposed to repeated fluoroscopies had an increased frequency of breast cancer. Whereas these subjects received irradiation to their breasts at one to two week intervals, screening for breast cancer would require no more than one to two mammograms per year. However, there are no radiobiological data indicating that the carcinogenic effect would be different if the time between doses was increased from one week to one year.

An epidemiological study able to prove that one to two rads of low-LET irradiation are capable of inducing breast cancer would require the examination of millions of women, with the practical impossibility of finding matched controls. On the other hand, it has long been recognized that animal data cannot be used to supply quantitative predictions for the number of human cancers expected to be induced by radiation. Animal data, however, can provide information on general principles of radiation effects.

Since uncertainties in the risk estimates for human breast cancer are due to our lack of understanding of the basic principles of radiation carcinogenesis and cocarcinogenesis, data from animals and in vitro systems should help to elucidate some of these uncertainties. This is one area identified by NCI as requiring special emphasis for additional research.

As an approach to facilitate clarification of this complex topic, the Breast Cancer Program Coordinating Branch asked a group of investigators to formulate relevant questions that, in their opinion, could be answered by animal or in vitro models. The text of the original report with the reviewers' comments has been published in the *Journal of the National Cancer Institute*, Vol. 61(6): 1537, 1978. The opinions expressed in this paper are intended to stimulate meaningful research projects and in no way should they be interpreted as limiting freedom of the applicant in pursuing the approach he/she considers optimal.

Mechanism of support will be the traditional research grant. Policies that govern research grant programs of NIH will prevail. The award of grants pursuant to this request for grant applications is contingent upon receipt of proposals of high scientific merit and the availability of appropriated funds. Applications will be accepted in accordance with the usual dates for new applications on an indefinite basis; March 1, July 1 and Nov. 1. NCI staff recognizes that few applicants will be able to respond to this announcement by the next regular receipt date (March 1, 1980) but is prepared to accommodate the applications of those who do.

Applications should be submitted on form PHS-398, which is available in the business or grants office at most academic or research institutions, or from the Div. of Research Grants, NIH. The phrase "Prepared in Response to NCI Announcement on Basic Research Related to Breast Cancer Mammographic Screening" should be typed across the top of the application. The original and six copies should be sent or delivered to: Application Receipt Office, Div. of Research Grants, NIH, Room 240, Westwood Bldg., Bethesda, Md. 20205.

In order to alert the Breast Cancer Program to the submission of proposals as requested above, copies of the face page and summary page of such applications should be forwarded under separate cover to:

Dr. D. Jane Taylor
Chief, Breast Cancer Program Coordinating Branch
NCI, Room 4A22, Landow Bldg.
Bethesda, Md. 20205

Title: *Research related to genetic susceptibility to human breast cancer*

The Breast Cancer Program encompasses the totality of problems related to the etiology, epidemiology, diagnosis, treatment and prevention of breast cancer. This program has a special interest in stimulating investigator-initiated research grant applications (R01s) for investigations of genetic susceptibility to human breast cancer.

The clustering of breast cancer in families is a well known phenomenon, and recent studies have indicated that in some families the disease appears to be segregating as a Mendelian trait, suggesting that one or more human genes are responsible for the susceptibility. Particular program interest in this area addresses such questions as: (1) what proportion of human breast cancers, female and male, may be accounted for or strongly influenced by susceptibility gene(s); (2) how many forms of genetic susceptibility exist and how common is each of these forms; (3) which, if any, environmental or cultural risk factors interact with genetic susceptibility; (4) how is genetic susceptibility expressed at physiological and biochemical levels; (5) whether or not the natural history of genetically influenced breast cancer resembles that of non-familial breast cancer; (6) whether increased

familial risk is reflected in breast cancer mortality risk; and (7) related studies on genetic aspects of human breast cancer.

The mechanism of support will be the traditional research grant. Policies that govern research grant programs of NIH will prevail. The award of grants pursuant to this request for grant applications is contingent upon receipt of proposals of high scientific merit and the availability of appropriated funds.

Applications will be accepted in accordance with the usual dates for new applications on an indefinite basis: March 1, July 1 and Nov. 1. Applications should be submitted on form PHS-398. The phrase "Prepared in Response to NCI Announcement of Genetic Susceptibility to Human Breast Cancer" should be typed across the top of the first page of the application. The original and six copies of the application should be sent or delivered to the same DRG address listed above. Also copies of the face page and summary page of such applications should be forwarded under separate cover to:

Dr. Elizabeth P. Anderson
Chief, Epidemiology Projects Section
Breast Cancer Program Coordinating Branch
NCI, Room 4A06, Landow Bldg.
Bethesda, Md. 20205

NCI CONTRACT AWARDS

Title: Support of activies of the U.S.A. National Committee on the International Council of Pathology; support of activities of the U.S.A. National Committee for the International Union Against Cancer; support of WHO international reference center, one-year renewals to three contracts
Contractor: National Academy of Sciences, $15,200; $24,990; $6,900.

Title: Cancer end results, continuation
Contractor: Connecticut Dept. of Health, $239,364.

Title: Comparative leukemia and sarcoma viral studies, continuation
Contractor: Univ. of California (Davis), $343,702.

Title: Operation of a facility to provide and maintain nonhuman primates for cancer research, continuation
Contractor: Litton Bionetics, $88,498.

Title: Support services to maintain studies on the role of viruses and experiemental oncogenesis and human cancer, continuation
Contractor: Hazleton Laboratories, $238,202.

Title: Immunological and biochemical studies of mammalian viral oncology, continuation
Contractor: Meloy Laboratories, $83,350.

Title: Preparation of antisera to oncogenic or potentially oncogenic viruses, continuation
Contractor: Huntingdon Research Center, Brooklandville, Md., $54,784.

Title: Spontaneous and virus induced neoplastic transformation, continuation
Contractor: Meloy Laboratories, $96,106.

Title: Support services for molecular studies of human and animal cancer, continuation
Contractor: Meloy Laboratories, $307,984.

Title: FDA/NCI special study of the role of saccharin in bladder cancer of the general population, continuation
Contractor: Westat Inc., $278,662.

Title: Immunoprevention of spotaneously occurring neoplasia, continuation
Contractor: Microbiological Associates, $30,000.

Title: Sequencing of the 3' end of RSV 35s RNA: Implications for replication integration, and chemotherapy, continuation
Contractor: Massachusetts General Hospital, $25,590.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer, or Contract Specialist for copies of the RFP, citing the RFP number. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research Contracts Branch which are issuing the RFPs. Address requests to the contract officer or specialist named, NCI Research Contracts Branch, the appropriate section, as follows:
Biology & Diagnosis Section and Biological Carcinogenesis & Field Studies Section—Landow Building, Bethesda, Md. 20205; Control & Rehabilitation Section, Chemical & Physical Carcinogenesis Section, Treatment Section, Office of the Director Section—Blair Building, Silver Spring, Md. 20910. Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

SOURCES SOUGHT

SS Project No. CB-04341-35

Title: *Electrophoretic display system for clinical x-ray imaging*
Deadline: *Feb. 14 (for statement of qualifications)*

The Cancer Diagnosis Research Program, Div. of Cancer Biology & Diagnosis, NCI, is issuing this announcement to identify organizations with active experience and capability to produce a large area electrophoretic display system for x-ray imaging which is appropriate for use in clinical radiological diagnosis.

A number of publications have indicated promising

possibilities for the use of appropriately designed electrophoretic cells as imaging devices to replace film in diagnostic radiology. NCI has supported promising preliminary development work in this field and, based on valid replies to this announcement, will determine whether additional support should be forthcoming.

Interested organizations are invited to respond. Prospective respondents should have produced a working model of an electrophoretic cell which produces images when exposed to clinically acceptable x-ray levels.

Contract Specialist: Elizabeth Rexroad
Biology & Diagnosis
301-496-5565

RFP NCI-CM-07331

Title: *Development of prescreens for evaluation of crude natural products*
Deadline: *Approximately April 1*

The organization will be required to do research and development to make the three prescreens (aminopeptidase enzyme inhibition, B-galactosidase lysogenic phage induction and microbial inhibition screen consisting of at least Candid albicans, Xanthomonas sp. and Agrobacterium tumefaciens) functional for the mass screening of at least 3,000 broths/year. The three prescreens indicated are only the initial prescreen tests to be developed and to be evaluated by the contractor so that they can be adapted to another laboratory to run 1,000 to 3,000 broths/year.

Other screens which might be relevant to the detecting of anticancer compounds in crude natural products extracts or broths should be indicated. The organization should have the capabilities and facilities to evaluate at least 1,000 broths/year which will be supplied by NCI. The in vitro assay should lend itself to being used to follow chemical fractionation.

The organization should conduct research in the development of new biochemical assays as more knowledge is obtained on what biochemical changes influence cancer. The principal investigator must be trained in biochemistry, or cell cytology or enzymology or biology with experience in screening and biochemical testing. It is anticipated that the total project will require 3.5 staff years–year 1; 3 staff years–year 2; 2.8 staff years–year 3.

RFP NCI-CM-07335

Title: *Systematic evaluation of fungi*
Deadline: *Approximately April 1*

The contractor will conduct systematic evaluation of fungi for their ability to produce antineoplastic and antifungal agents. The organization should have the capabilities and facilities to provide and operate a biological fermentation laboratory, culture maintenance, prescreen and antifungal assay laboratory.

The contractor should be able to (1) systematically evaluate 1,000 to 2,000 different fungi as potential producers of antineoplastic and antifungal agents and these organisms should be available in-house at the present time; (2) ferment the fungi for various times; (3) prescreen the fermentations against various in vitro prescreens designated by NCI such as phage induction, cell cytotoxicity, etc; (4) assay the fermentation broths for in vitro antifungal activity; (5) conduct all shake flask optimization studies to increase the yield of the active compound; and (6) maintain and preserve fungal cultures active in the prescreens.

The principal investigator must be a biologist or microbiologist with fungal fermentation experience. It is anticipated that the total project will require four technical staff years of effort/year.

Contracting Officer for the above two RFPs: John Palmieri
Cancer Treatment
301-427-8737

RFP N01-CM-07325-15

Title: *Application of the sub-renal capsule assay to drug testing and development of new in vivo tumor systems*
Deadline: *Approximately March 15*

The contractor will provide support for application of the renal capsule assay to antitumor drug testing and for development of new in vivo tumor systems. The studies will be concerned with (1) developing new animal tumor systems with potential predictive value in selecting drugs which will be active against human solid tumors; (2) developing resistant lines of tumors so that cross resistance to new agents can be evaluated; and (3) determining whether human tumor xenografts in the renal capsule assay respond in the same manner as the tumor in the patient.

As a minimum requirement of the RFP, the offeror must provide a barrier facility for the handling of athymic mice. It is anticipated that the incrementally funded contract will be awarded for a period of three years at a level budget. The first year will be four technical staff years of effort, the second year will be 3.75 technical staff years of effort, and the third year will be 3.5 technical staff years of effort. Each increment will be for a period of one year.

Contract Specialist: Maria Decker
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