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## NCI BUDGET PICTURE: NEW GRANTS DOWN, NO NEW CENTER AWARDS, MANY PROJECTS LEFT UNFUNDED

NCI received its final appropriation figure for fiscal year 1977 early enough to give acting Director Guy Newell and his senior staff the time to consider various alternatives and take a long, last look at priorities.

What they came up with did not make any of the program or division directors very happy, but some are less unhappy than others. Unhappiest of all, of course, will be those grant applicants who, in other years, would have been funded but this year will not.

Newell and his staff detailed their spending plans to the President's Cancer Panel this week. Here are some highlights:

(Continued to page 2)

*In Brief*

### LONG ISLAND IN, SEATTLE OUT OF COMMUNITY BASED CANCER PROGRAM; SIX STILL IN RUNNING

LONG ISLAND'S application for the implementation phase of the Community Based Cancer Program has been approved by NCI. Long Island thus joins New Mexico and Detroit in the ambitious effort sponsored by the Div. of Cancer Control & Rehabilitation to demonstrate that an all-out, coordinated approach in a community to improve detection, diagnosis, treatment and prevention can impact morbidity and mortality. John Dibeler coordinated the Long Island effort, probably will be principal investigator. Meanwhile, NCI rejected the application from Seattle to move from the planning to implementation phase of the program. Rochester previously had been turned down, leaving six of the original nine with planning contracts left in the running, in addition to Long Island. New Mexico and Detroit went directly into the implementation phase. Los Angeles, Hawaii and Rhode Island will receive limited additional funds to complete their planning. L.A. and Rhode Island probably will be ready for implementation in FY 1977. Pittsburgh, Wisconsin and Connecticut have not yet had their final review. Each with implementation awards will be funded at about $1 million a year for five years. . . . ARNOLD BROWN'S appointment as the new NCI director could come at any time. President Ford will not let it wait until Jimmy Carter takes over, and will make the appointment himself sometime before Jan. 20. . . . ROBERT SQUIRE, who has just taken over as head of the Carcinogenesis Bioassay Program (*The Cancer Letter*, Nov. 26), will soon leave NCI because of family considerations. He was just getting started in the job of reorganizing the troubled program, with its embarrassing backlog of unreported test results. Cause & Prevention Director James Peters has recruited a replacement, will make an announcement soon, and hopes that Squire will be available as a consultant on a part-time basis. Peters also is looking for someone to head the Carcinogenesis Research Program; until that job is filled, his deputy, Gio Gori, will run it.

## "TURNOVER," CONSTRUCTION MONEY ALL THAT'S AVAILABLE FOR NEW PROJECTS

(Continued from page 1)

The total budget will be $815 million, not the $819 million NCI had been tentatively counting on. Congress actually appropriated $815 million, but NCI and other agencies had been led to believe that a supplemental appropriation would be made to cover the government-wide pay raises Congress approved this year. They were mistaken, and it will cost NCI $4 million to cover the raises for its 1,900 employees.

Thomas King, director of the Div. of Cancer Research Resources & Centers, reported that 1,600 new traditional research grant applications will be submitted during the fiscal year, and an estimated 967 will be approved by NIH study sections. But only 28% of the approved new applications will be funded.

King said the funding cutoff would be at the 215 priority score for all competing grants, new and renewal. Non-competing continuation grants will be funded at recommended levels. There will be no supplemental awards.

DCRRC has budgeted $136 million for regular, traditional research grants, $7 million more than in 1976. The 28% of new applications which will be funded will total an estimated 267.

There were 826 grants expiring, and of those, only 187 will be renewed. The 187 represent 41% of the approved competing renewals—those not in the approved category either did not apply for renewal, or were disapproved.

Each renewal will be funded at an average of $160;000 a year, and each new one at $78,000.

King reported his budget allocated $90 million for program projects, $4 million above the 1976 level. There will be 103 continuation awards and 30 competing renewals. There may not be any funds for new program project awards, depending on completion of review of the competing renewals. King said that a formula may be applied to those renewals, awarding less than recommended funds, which could free up some money for new projects.

Other programs supported by DCRRC:

—Radiation development, $4.1 million, $300,000 more tha n 1976, 19 awards.

—Clinical education, $9 million, up from $7.6 million in 1976, 85 awards, four more than last year. If negotiations still in process result in enough savings, King said he could fund an additional seven competing renewals and 11 new grants.

—Research career, $3 million, 129 awards, down from 136 awards last year. Part of this program includes the lifetime salary support under the old research career program, which is being phased out. The new research career development program offers salary support, up to $25,000 a year, for young investigators for a five year period. It is non-renewable.

—Fellowships, $18.2 million, up from $13.4 million, 433 awards, compared with 281 awards last year.

—Training grants, $1.8 million, down from $4.8 million, 14 awards compared with 45 last year. This involves primarily the old training grant program being phased out, with most of the support now going into fellowships under the National Research Service Act.

—Cancer center core grants, $47.5 million, compared with $39.2 million last year, 49 awards. Of these, 40 will be continuation awards and nine will be competing renewals. The continuation awards will be at recommended levels, the renewals at a formula level. King said there are not likely to be any new core awards made this year.

—Task forces, $14.3 million, up slightly from $14 million last year. The increase will go mostly into the National Pancreatic Cancer Project, which was just getting organized last year.

Alan Rabson, director of the Div. of Cancer Biology & Diagnosis, reported that nearly all of his budget increase, from $57.8 million last year to $61.6 million, "will be consumed by increased in-house expenses," pay raises and other inflation factors.

Of Rabson's budget, $37.2 million will be for extramural support, the rest for his intramural programs. Extramural support includes $34.8 million for contracts, no increase over 1976; $1.9 million for interagency agreements, and $475,000 for Cancer Research Emphasis Grants (CREG).

Rabson said any new initiatives would have to be funded with "turnover" money. The division will have 88 contracts terminating, which will release $6.8 million. Half of that will have to go to increased renewal costs, with $3.4 million left for new efforts.

DCBD includes the immunology program, with $25.8 million, up $1.2 million from last year. Rabson said new efforts in immunology this year will include (but not be limited to):

—Diagnosis, new tests for cell mediated immunity.

—Biology, studies of killer cell mechanisms, and antibody complement mechanisms.

—Treatment, expansion of a study on intrapleural injection of BCG after surgery for lung cancer.

—Immunological tests for carcinogens.

Rabson's budget for diagnosis is $15.4 million, up $500,000 over last year. New efforts will include, in cytology automation, search for immunologic surface markers, and in x-ray, improved imaging and resolution. Improved ultrasound and thermography techniques will be sought.

Vincent DeVita, director of the Div. of Cancer Treatment, reported that while his budget of $127.3 million was up $8 million over last year, his "requirements" totaled $136 million. Here's how he broke it down:

—Intramural, $27.98 million, up from $27.3, leaving $1.1 million in "unfunded" requirements, mostly for equipment.

Contracts, $71.192 million, up from $68.36 million. Projects that will be funded include new adjuvant therapy clinical trial for colo-rectal cancer, large scale isolation and extraction of natural products in the drug development program, development of analogs for radiosensitizing agents, and additional support required by increased demands of the Food & Drug Administration.

The $3.58 million in unfunded projects that would be supported through contracts if money were available include development of liplsomal encapsulation of antitumor agents, certain nutrition studies, and expansion of studies in head and neck and uterine cancer.

–Clinical Cooperative Groups, funded through grants, which will total $26.4 million in FY 1977, up from $23 million last year. Continuation awards (noncompeting renewals) will be funded at the recommended levels. Competing renewals will get only a 7% cost of living increase.

DeVita listed $3.8 million as "unfunded requirements" of the Cooperative Groups. If additional money becomes available, it would be used to fund the competing renewals at recommended levels and possibly to help start new groups organized on a geographic basis. So far only one application for such a group is in, from the Northern California Cancer Program, and it has not been reviewed.

James Peters, director of the Div. of Cancer Cause & Prevention, reported an increase in his budget of $9 million, to $144.3 million. From that $9 million, he had to transfer $3 million to NIOSH as directed by Congress, reserve $1.5 million for the new positions mandated for the Carcinogenesis Program by Congress, and use $800,000 to cover the pay raise. The Viral Oncology Program has been cut by more than $1 million, and the Smoking & Health Program chopped by $2 million. The Nutrition Program will go from $5.4 million to $7.3 million.

The Div. of Cancer Control & Rehabilitation budget is a separate item in the appropriation bill, and none of its funds may be "reprogrammed" to other divisions. Division Director Diane Fink reported that her budget of $60.4 million represented the final reduction from $73.5 million she had submitted to the Office of Management & Budget. The $60.4 million is a 7% increase over 1976 but 18% less than she had requested.

Here's how some of the DCCR money will be spent:

–Grants, $12.4 million. This includes $970,000 for new grants, $2.7 million for competing renewals, $1.1 million for noncompeting renewals (continuation) for rehabilitation research, and $7.7 million for other noncompeting renewals.

–Contracts, $43.3 million for contract renewals, $600,000 for new contracts.

There will be $1.3 million in contracts that will not be funded unless additional money is available. These will include contracts with cooperative groups and two rehabilitation contracts.

Fink said the merit review of DCCR contracts which led to renegotiation and some terminations saved $4.5 million.

None of the figures presented by the division directors took into account extra money they might get if NCI is permitted to take $10 million out of the amount appropriated for construction. Some of the projects in the "unfunded" categories could be supported, although Newell said the staff submitted requests totaling $35 million to be funded from the $10 million.

Here's how the $10 million will be divided up if OMB and the congressional appropriation committees approve the transfer:

Clinical trials, $2 million; nutrition, $1 million; pathology backlog (in the Carcinogenesis Program), $500,000; research on less expensive testing for carcinogens, $500,000; investigator-initiated (traditional) research grants, $3.5 million; centers (core and exploratory grants), $2 million; task forces, $500,000.

## ROSWELL PARK STATISTICIAN CONTENDS NEW MAMMOGRAM RULES WORSE THAN OLD

The report that the controversy over mammographic screening for breast cancer had "cooled" (***The Cancer Letter,*** Nov. 26) evidently was somewhat premature. At least one critic not only has not been mollified by the guidelines which limit mammograms to high risk and symptomatic women under 50 and to all women over 50 in the NCI-American Cancer Society sponsored detection clinics–this critic feels the new policy is even more dangerous than the one that encouraged annual mammograms for all women over 35.

Irwin Bross, director of biostatistics at Roswell Park Memorial Institute, said that ACS and NCI may be advising American women to "jump from the frying pan into the fire."

"The trouble with screening women with higher risks of breast cancer is that there is a reason for their higher risks," Bross said. "Probably there is already some genetic damage in the DNA of these women. Exposing them to additional x-ray can produce the one additional break-point in the DNA of their breast cells which will start the process that ends as breast cancer."

The guidelines issued by NCI and ACS recommend mammography for women of any age in which there is a suspected breast neoplasm; for women 35-50 "if she and the physician agree that it is in her best immediate interest," and women at "high risk" because of family history, reproductive history, or prior breast cancer.

Arthur Holleb, ACS vice president for medical affairs and editor in chief of *Ca–A Cancer Journal for Clinicians,* described in the current issue of that pub-

lication those risk groups as women who have:

- ★ Chronic cystic mastitis, with or without pain.
- ★ Lumps and thickenings in the breast.
- ★ Nipple discharge or other nipple abnormalities.
- ★ A personal history of breast cancer.
- ★ A family history of breast cancer on the maternal or paternal side.
- ★ A family history of breast cancer in sisters.
- ★ Early onset of menstruation.
- ★ No history of pregnancy.
- ★ First full-term pregnancy at age 30 or older.
- ★ Breast surgery scheduled for diagnostic purposes.
- ★ A fear of breast cancer that requires the reassurance of a negative examination.

Bross, an epidemiologist, said that although more breast cancer would be detected in this group, and thus the benefits of mammography would be greater, the risks are likely to be increased even more. In the high risk groups the results could be worse than in unselected mass screening where four or five new breast cancers were being produced for each cancer that could possibly be cured, Bross contended.

Recent studies by Bross on the risks of leukemia in the children of parents exposed to diagnostic radiation before or during pregnancy have showed that the high risk group for leukemia was also highly vulnerable to x-ray. Using a new mathematical technology it was possible to estimate the chance that x-ray exposure to a parent will produce genetic damage in the child, Bross said. This occurred in approximately 1% of the exposed parents. One explanation of why only 1% were affected is that some pre-existing genetic damage is necessary. Persons with such damage would comprise a high risk group vulnerable both to x-ray and to diseases. "Our results suggest that ACS wants to give x-ray to the very people who should be exposed to as little x-ray as possible," Bross said.

Bross called for an immediate in depth critical evaluation by public health scientists before any more American women "are exposed to potentially dangerous screening programs."

Holleb in his article pointed out that three groups of women, all of whom had been previously exposed to high or very high levels of radiation, were the basis for initial statistical evaluation and subsequent predictions of risk. These women included survivors of the Hiroshima and Nagasaki nuclear bombings, young women irradiated many years ago for postpartum mastitis, and another group of young tuberculosis patients who had undergone repeated fluoroscopies.

"The results of this retrospective statistical study suggest that while there may be a theoretical risk from low-dose radiation exposure (after a latency period of many years), the risk is extremely small for the individual woman," Holleb wrote. "Extrapolating from very large doses to very small doses and indicating that there is no absolutely safe dose, it is speculated that if a woman has a mammogram with approximately one rad absorbed by the breast, her chances of developing breast cancer theoretically change from an expected .07 (7.0%) to .0707 (7.07%). Stated more simply (if these estimates are applicable) her probability of eventually developing breast cancer is said to increase from one in 14.3 women to one in 14.1 women.

"Any risk, no matter how small, should not be completely dismissed," Holleb continued. "At the same time, we must not minimize the risk of spontaneous breast cancer, which remains the leading cancer killer of American women and the leading cause of death in women 39-44 years of age.

"The only recognized approach to saving more lives from breast cancer is detection at a localized, highly curable stage, hopefully before the cancer becomes a mass large enough to palpate. Mammography is the only means available today to detect cancer at such an early stage.

Charles Land, NCI staff member of the Biometry Branch in the Div. of Cancer Cause & Prevention, has been studying the reports on the three groups mentioned by Holleb—Japanese A-bomb survivors, masttitis and TB fluoroscopy patients. His study is still going on, but he had some interesting preliminary information which he reported at the last meeting of the Cancer Control & Rehabilitation Advisory Committee.

The Japanese A-bomb survivors in the study total 63,000, including 15,000 non-exposed controls who have lived in Hiroshima and Nagasaki since 1950 but who were not there at the time of the bombing.

The dosage received by each person in the study was determined by a complicated formula including their distance from ground center of the explosion and how they were shielded.

Land said the incidence of breast cancer increased with the increase in dosage; that breast tissue of teenage girls seemed to be more sensitive to radiation than women in their 20s and older; that the effect of a number of low dose exposures, one to two rads, separated by one to two weeks, was cumulative, resulting in effects comparable to that of the same dose given in a single exposure.

Asked by committee member Hamblin Letton if longer time between exposures would make any difference (the demonstration project gives mammograms at a maximum of one a year), Land said, "We don't know."

Land said the statistical evidence "is not as strong at one or two rads as it is at 17," the lowest dose at which an effect is shown among A-bomb survivors. The estimated risk for breast cancer among the survivors, for women who were age 10-19 at time of exposure, is 5.5% over the normal incidence, Land said. For those over age 35 at exposure, it is about 1%.

## NCI ADVISORY GROUP, OTHER CANCER MEETINGS FOR JANUARY, FEBRUARY

**Clearinghouse on Environmental Carcinogens Data Evaluation Subgroup**—Jan. 5, NIH Bldg 31 Room 6, 8:30 a.m.—5 p.m., open.

**Clearinghouse Risk Assessment Subgroup**—Jan. 6, NIH Bldg 31 Room 6, 8:30 a.m.—5 p.m., open.

**Cancer Control & Rehabilitation Advisory Committee Subcommittee on Cost Reimbursement**—Jan. 9, NIH Bldg 31 Room 7, 1-5 p.m., open.

**Cancer Control & Rehabilitation Advisory Committee Subcommittee on Community Activities**—Jan. 9, Bethesda Holiday Inn, open 8 p.m.—10 p.m.

**Cancer Control & Rehabilitation Advisory Committee**—Jan. 10, NIH Bldg 31 Room 8, 9 a.m.—adjournment, open.

**Cancer Immunodiagnosis Committee**—Jan. 9, NIH Bldg 10 Room 4B14, open 1—1:30 p.m.

**Workshop on Estrogens & Endometrial Cancer**—Jan. 11-12, NIH Bldg 1 Wilson Hall, 2 p.m.—5 p.m. Jan. 11, 9 a.m.—adjournment Jan. 12, all open.

**Cancer Control & Rehabilitation Advisory Committee Subcommittee on Prevention**—Jan. 11, NIH Bldg 31 Room 9, 9 a.m.—1 p.m., open.

**Breast Cancer Task Force**—Jan. 12, Bethesda Holiday Inn, 8:30 a.m.—adjournment, open.

**Committee on Cytology Automation**—Jan. 12-14, NIH Bldg 31 Room 4, open Jan. 12 9-10 a.m.

**Course in Hematology-Oncology**—Jan. 13-16, Univ. of Miami Medical School. Write to PO Box 520875, Miami 33152.

**Some Basic Approaches to the Early Diagnosis & Treatment of Gynecologic Cancer**—Jan. 13, Roswell Park. Contact Joseph Barlow.

**Recent Advances in Diagnosis & Treatment of Lung Cancer**—Jan. 13, Roswell Park continuing education in oncology.

**Breast Cancer Treatment Committee**—Jan. 13, NIH Bldg 31 Room 9, open 8:30 a.m.—noon.

**Breast Cancer Epidemiology Committee**—Jan. 13-14, NIH Bldg 31 Room 7, open Jan. 13, 8:30—10:30 a.m.

**Breast Cancer Diagnosis Committee**—Jan. 13-14, NIH Bldg 31 Room 6, open Jan. 13, 8:30—9 a.m., Jan. 14, 8:30—9:30 a.m.

**Breast Cancer Experimental Biology Committee**—Jan. 13-14, Landow Bldg Room C418, open Jan. 13, 8:30—9:30 a.m.

**Drug Development Committee**—Jan. 13-14, Arthur D. Little, Inc., Cambridge, Mass., open Jan. 14, 9—10:30 a.m.

**Cancer Control Community Activities Review Committee**—Jan. 20-21, NIH Bldg 31 Room 8, open Jan. 20, 8:30—10:30 a.m.

**National Cancer Advisory Board Subcommittee on Planning & Budget**—Jan. 23, NIH Bldg 31 Room 7, open 1:30 p.m.—adjournment.

**NCAB Subcommittee on Centers & Construction**—Jan. 23, NIH Bldg 31 Room 7, open 7 p.m.—9 p.m.

**NCAB Subcommittee on Carcinogenesis & Prevention**—Jan. 23, NIH Bldg 31 Room 9, open 4—4:30 p.m.

**NCAB Subcommittee on Diagnosis & Treatment**—Jan. 23, NIH Bldg 31 Room 8, open 4—4:30 p.m.

**National Cancer Advisory Board**—Jan. 24-25, NIH Bldg 31 Room 6, open Jan. 24, 9 a.m.—noon, Jan. 25, 9 a.m.—adjournment.

**National Pancreatic Cancer Project Working Cadre**—Jan. 26, Ramada Inn, Los Angeles, open 8:30—9:30 a.m.

**Virus Cancer Program Advisory Committee**—Jan. 26-27, NIH Bldg 37 Room 1B04, open 9 a.m.—adjournment both days.

**Committee on Cancer Immunotherapy**—Jan. 27, NIH Bldg 10 Room 4B14, open 1—1:30 p.m.

**National Prostatic Cancer Project Working Cadre**—Jan. 27, Civic Center Holiday Inn, Miami, open 8—8:30 a.m.

**Assn. of Community Cancer Centers**—Jan. 28-30, Key Bridge Marriott Hotel, Arlington, Va.

**Cancer Control Intervention Program Review Committee A**—Jan. 28-29, NIH Bldg 31 Room 4, open Jan. 28, 8:30—11:30 a.m.

**Clearinghouse on Environmental Carcinogens Chemical Selection Subgroup**—Feb. 2, NIH Bldg 31 Room 10, 8:30 a.m.—5 p.m., open.

**Clearinghouse Experimental Design Subgroup**—Feb. 3, NIH Bldg 31 Room 4, 8:30 a.m.—5 p.m., open.

**Combined Modality Committee**—Feb. 3-4, NIH Bldg 31 Room 7, open Feb. 3, 8:30—9 a.m.

**American Society for Preventive Oncology**—Feb. 4-5, Memorial Hospital, New York, Daniel Miller, chairman, Strang Clinic, 55 E. 34th St., NYC 10016.

**President's Cancer Panel**—Feb. 8, NIH Bldg 31 Room 7, 9:30 a.m., open.

**Cancer Special Programs Advisory Committee**—Feb. 10-12, NIH Bldg 31 Room 8, open Feb. 10, 9—10 a.m.

**Electron Microscopy as an Aid to Tumor Diagnosis**—Feb. 10, Roswell Park continuing education in oncology.

**Committee on Cancer Immunobiology**—Feb. 15, NIH Bldg 10 Room 4B14, open 2—2:30 p.m.

**Biology & Epidemiology Contract Review Committee**—Feb. 15-16, Landow Bldg Room C418, open Feb. 15, 7 p.m.—11 p.m.

**Diagnostic Research Advisory Group**—Feb. 16, NIH Bldg 31 Room 9, open 8:30—10:30 a.m.

**Diagnostic Radiology Committee**—Feb. 23-24, NIH Bldg 31 Room 5, open Feb. 23, 8:30—9 a.m.

**Clinical Cancer Education Committee**—Feb. 23-24, NIH Bldg 31 Room 7, open Feb. 23, 8:30—9:30 a.m.

**Virus Cancer Program Scientific Review Committee B**—Feb. 28, Landow Bldg Room C418, open 9—9:30 a.m.

## FINAL ISSUE OF THE CANCER LETTER FOR THE YEAR — NEXT, JAN. 7, 1977

This issue of *The Cancer Letter* is the last of 1976 and the final one, No. 50, in Volume 2. The next issue, Volume 3 No. 1, will be published Jan. 7, 1977.

The office of *The Cancer Letter* will be closed from Dec. 16 until Jan. 3.

Best wishes for the Holiday Season.

## SOLE SOURCE NEGOTIATIONS

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

**Title:** Biochemical pharmacology and pharmacokinetics
**Contractor:** Upjohn Co.

**Title:** Working group for the review of BCDDPs
**Contractor:** Mayo Foundation.

**Title:** Research on oncogenic and potentially oncogenic viruses, virus production and vaccine development
**Contractor:** Merck & Co.

**Title:** Immunological assays for DNA and RNA viruses
**Contractor:** Litton Bionetics.

## 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-CP-VO-71008-60

**Title:** *In vitro study of interrelationships of host cell differentiation and oncogenic virus infections*

**Deadline:** *Feb. 1, 1977*

The Viral Oncology Program, NCI, will make available to interested contractors a request for proposal for study in vitro of the influence of oncogenic virus infection on eukaryotic cell differentiation. This will involve investigations to determine: (1) how the stage of differentiation affects the ability of the virus to infect the cell; (2) if infection occurs, how this affects the ability of the cell to perform its differentiated cell functions; and/or the stages in the process of differentiation where the virus exerts its influence on the differentiated functions of the cell.

**Contract Specialist:** W.L. Caulfield
Cause & Prevention
301-496-1781

### RFP NCI-CM-77138

**Title:** *Production of novel antineopla stic compounds using fermentation biotransformations and co-metabolism techniques*

**Deadline:** *Approximately Feb. 1, 1977*

NCI's Div. of Cancer Treatment, will make available to interested contractors a request for proposal concerning a project to find new antineoplastic compounds using fermentation, co-metabolism, biotransformation, and genetical manipulation of cultures.

The contractor must provide and operate a microbial fermentation, culture isolation, genetic and chemical natural products isolation laboratory to obtain antineoplastic materials. It is planned that one contract will be awarded for a three-year period of performance.

To be considered for such a contract, candidate organization must show evidence of experience in fermentation (shake flask and stir jar), co-metabolism and biotransformations, optimization studies, maintenance and preservation of cultures, genetical techniques, and natural products isolation capabilities. This work will require the tranformation of known antibiotics, and the co-metabolism of various carbon compounds.

In addition, the isolation of a multitude of various organisms on unique substrates is requested. It is anticipated that the level of effort required during year year of contract performance will consist of six man years.

**Contracting Officer:** George Summers
Cancer Treatment
301-427-7463

### RFP NCI-CB-74135-35

**Title:** *Develop and test image processing techniques for automation of cytology screening*

**Deadline:** *Feb. 11*

### RFP NCI-CB-74136-35

**Title:** *Develop an ultrasonic probe system for endoscopic use to detect and localize tumors in regions of the body near the probe*

**Deadline:** *March 1*

**Contract Specialist:** C.V. Baker
Biology & Diagnosis
301-496-5565

## CONTRACT AWARDS

**Title:** Phase II and III studies in patients with disseminated solid tumors

**Contractor:** Wayne State Univ., $36,981.

**Title:** Support services for studies of the role of viruses in experimental oncogenesis

**Contractor:** Hazleton Laboratories, $726,395.

**Title:** San Francisco Bay Area resource for cancer epidemiology

**Contractor:** California State Dept. of Health, $1,052,556.

**Title:** Research on spontaneous and virus induced neoplastic transformation

**Contractor:** Meloy Laboratories, $104,160.

**Title:** Support services for application of animal virus model systems

**Contractor:** Litton Bionetics, $45,103.

**Title:** Studies on herpesvirus antigens and virions in neoplastic cells

**Contractor:** Johns Hopkins Univ., $88,050.

**Title:** Immunological and biochemical studies of mammalian viral oncology

**Contractor:** Meloy Laboratories, $77,851.

**Title:** National cancer consultative programs for hospitals

**Contractor:** American College of Surgeons, $66,312.

**Title:** Maintenance of population based cancer epidemiology research center

**Contractor:** Univ. of Iowa, $448,585.

**The Cancer Letter**—*Editor* JERRY D. BOYD

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