THE CANCER LETTER

Vol. 3 No. 26

July 1, 1977

1411 ALDENHAM LANE RESTON, VIRGINIA TELEPHONE 703-471-9695

Subscription $100 per year

SCHMIDT'S ADVICE TO UPTON: TAKE A LOOK AT GRANTS VS. CONTRACTS, CARCINOGENESIS, CANCER CONTROL

Benno Schmidt went on record with some advice he said he intends to give incoming NCI Director Arthur Upton regarding what the chairman of the President's Cancer Panel considers as the major issues with which Upton will have to deal–funding mechanisms for basic research, management of contracts by NCI researchers, environmental carcinogenesis and cancer control.

After delivering his prepared statement defending the National Cancer Program at the oversight hearings by Congressman L.H. Foun-

(Continued to page 2)

In Brief

FINAL APPROPRIATION FOR NCI STILL PROBABLY $875 MILLION; US-USSR DRUG BOOK AVAILABLE

SENATE APPROPRIATIONS Committee approved the $920 million for NCI put into the HEW money bill by the Labor-HEW Subcommittee. Unless that figure is changed when the bill reaches the Senate floor, the final figure for NCI will be around $875 million, assuming an even split of the difference between House and Senate measures. . . . **AWARDS:** Jonathan Rhoads, chairman of the National Cancer Advisory Board, Philadelphia's "Man of the Year" and winner of the Papanicolou award; John Heller, former NCI director and now special consultant for international programs, the John F. Kennedy award from the Univ. of Buenos Aires; and *Journal of the National Cancer Institute,* edited by John Bailar, an achievement award from the Society for Technical Communication. . . . **CORRECTION:** The single project supported by NCI in Austria (***The Cancer Letter,*** June 17) is at the Institute of Molekularbiologie, in Salzburg. The investigator is Klaus Kroatoechwil, who is doing a study on early response to estrogens in animal mammary glands for the Breast Cancer Task Force. . . . **PUBLICATIONS:** *Methods of Development of New Anticancer Drugs,* a USA-USSR monograph, published as part of the agreement between the two countries for cooperative efforts in chemotherapy of cancer. It includes an excellent description of NCI's drug development, evaluation and clinical testing, pharmacology, toxicology, experimental models, phase I, II and III trials and combined modality approach, current investigational drugs of interest, detailed charts describing the decision networks involved in drug development, and preclinical toxicology protocols. The Russian section of the book is comparatively limited, but gives brief descriptions of anticancer drugs used there. The hard cover book is available from the Government Printing Office, Washington D.C. 20402, for $9.50 plus another $2.40 for foreign mailing. . . . **RENILDA HILKEMEYER,** director of nursing at M.D. Anderson since 1955, has been promoted to assistant to the president for nursing resources. Patricia Tedder is the interim director of nursing.

SCHMIDT DEFENDS VIROLOGY PROGRAM; CLARK ASKS FOR MANPOWER INCREASES

(Continued from page 1)

tain's Government Operations Subcommittee, Schmidt responded to questions from Fountain, Congressman John Wydler and subcommittee staff members. Schmidt offered his opinion of "areas of controversy that are legitimate and which the new director will have to consider." Schmidt said he would recommend to the new director that he:

–"Take a new look at advantages perceived in funding basic research with both grants and contracts." Schmidt has on previous occasions suggested that while contracts might be useful in stimulating new areas of research, such as was the case a few years ago in immunology and virology, grant supported investigator initiated research might be more appropriate and fruitful once a sufficient number of investigators are working in a field.

–"A few NCI intramural investigators also supervise extramural contracts in their areas. In the review, they always come out well. But this has led to controversy because extramural scientists do not feel intramural scientists should be permitted to extend their own research that way."

–"I think we've made vast improvement in environmental carcinogenesis. Because of the enormous interest and because of new science coming along, the whole area of environmental carcinogenesis needs looking at. I thought the Clearinghouse (on Environmental Carcinogens) would do that, but Dr. (Sidney) Wolfe (of Health Research Group who had previously testified) said that it wasn't. The problem is that we've got a half dozen agencies with a major interest in environmental carcinogenesis. If those agencies are not effectively coordinated, we won't do our best."

"Do you feel a lack of coordination exists?" Fountain asked.

"I had thought there was good coordination, but we've heard here that there isn't," Schmidt replied.

–"Cancer control, the problem of getting the technology out where it can be used, is extremely difficult. If your job is technology transfer, you can't look any better than the technology you're trying to transfer. . . . We have to work at it. Progress has been made. . . . Dr. (William) Shingleton, who I think is the strongest man in the United States on this problem, was appointed chairman of the (Cancer Control & Rehabilitation Advisory) committee. I have never worked in any area of government where volunteers work as effectively or as hard."

Schmidt said in his prepared statement, "It is sometimes said that that portion of the cancer program which is aimed at the better use of today's knowledge in the diagnosis, treatment and rehabilitation of the cancer patient is a waste of money or is not meeting with any perceptible success. The last statement is incorrect and the first statement, in my opinion, borders on the absurd."

Schmidt offered a strong defense of the much-maligned virology program. "The big mistake about the support of virology research that continuously recurs in the press is the assumption that all of this money is being spent in the thus far futile search for a human cancer virus. The fact of the matter is that this amount is being spent in the area called virology because that area has turned out to be the focal area for most of the productive research in molecular biology. It is in the area that we call virology that much of the progress in our basic understanding of the transformation of normal cells to cancer cells is taking place. It is this area of research that produced our understanding of reverse transcriptase, recombinant DNA, gene structure and function, surface antigens, and the functioning of cell nuclei. The new technique that is provided by recombinant DNA is certain to lead to a deeper understanding of how genes act in both normal and cancer cells. Virology is a most important area of basic research which no knowledgeable scientist ridicules and substantial research in this area must continue to be supported."

CLARK: Accomplishments, Areas for Improvement

R. Lee Clark, president of the Univ. of Texas System Cancer Center, current president of the American Cancer Society and former member of the Cancer Panel, listed what he felt were seven major achievements of the National Cancer Program:

- Establishment of 16 new nationally recognized comprehensive cancer centers.
- Funding of more basic cancer related research than ever before.
- Activation of organ site task forces.
- Reactivation and expansion of a national cancer control program.
- Establishment of the International Cancer Research Data Bank.
- Creation of the Clearinghouse on Environmental Carcinogens.
- Development of chemotherapy, immunotherapy, nutritional therapy and the expansion of rehabilitation therapy.

Clark said that progress in systemic treatment of disseminated cancer "has been astounding." He mentioned the use of adjuvant therapy for esteogenic sarcoma, which he said a few years ago was "95% fatal" within months; "now we have 65% survival after three years."

Clark took the opportunity to get into the record his view on areas of the Cancer Program which need improvement:

1. Two chronic manpower problems have been understaffing of NCI. There are not sufficient positions to keep pace with the burgeoning program; and the fact that fellowships and stipends for trainees were intermittently reduced, phased out, or threatened, the National Cancer Program has suffered considerably by not being able to fund sufficiently the

manpower needed to conduct many investigations adequately and to bring into cancer-related research all of the young minds needed for the present and for the future.

2. "Slowed process of grant and contract review and funding. Prior to the National Cancer Act, grant review and funding frequently took seven to 15 months from submission to award. That time has now been extended by 50% instead of being shortened. NCI is now reviewing and funding approximately twice as many research grants and contracts as at any other time in the history of the institution and the work load is overwhelming.

"Also related to this problem is the lack of a mechanism for rapid funding of truly innovative, 'hot' ideas which show promise of immediate application of benefit to patients.

"Still another related problem is that of stability of funding. Although most grants are awarded for a 2-to-3-year period initially, delays of up to 10 to 11 months in approval of the HEW budget by Congress and the President each fiscal year have seriously slowed and jeopardized the continuity and momentum of many programs."

3. "Clinical trials of newly developed drugs, radiotherapy equipment, multimodal therapy, etc., were adequately funded during the last 5½ years, but the clinical research, which made possible these trials and which is entirely separate from what we call basic research, has not been adequately funded. Such areas include defining the mechanisms within cells that metabolize drugs and that respond to radiation, learning about the immunological system of the human to mobilize it to aid other forms of therapy, etc. The studies in pharmacology, immunology, cell kinetics, etc., demand close work by scientists and clinicians to observe patient responses and redefine protocols for better destruction of cancer cells while protecting the normal cells."

4. "Harvesting the results of research. Although there are several mechanisms for disseminating cancer research information emanating from the funded research, we have not devised and funded any mechanism for an annual total review and summary in one document of all cancer research and clinical finding reported during each fiscal year. Articles appearing in journals and monographs of symposia and conferences frquently are not published for one to two years following oral presentation or the completion of the research. We need more rapid reporting of both positive and negative results available in one document that could be reviewed for planning for future research programs."

5. "Although we all realize that for most cancers, final therapeutic results cannot be considered valid until the lapse of at least five years from initiation of therapy in a sufficient number of patients, some means must be devised to shorten the time periods from the conception of a potentially meritorious idea until there is direct benefit to cancer patients. The full process from theoretical concept through the basic laboratory research, to animal trials, then to clinical research in humans and finally, wide application to cancer treatment in all communities, has in the past taken a minimum of 15 years. It is essential to reduce this time at least by half. Factors which will contribute to this saving of time are the development of cultured cell systems to determine rapidly the likely outcome of new therapeutic agents, instead of using animal models which require a 2-to-3-year period for result and even then may or may not be applicable to the human condition; shortening the time it takes to review and fund grants; shortening the reporting time after the completion of the research."

6. "Improvement of the coordination and shortening the time for interagency activities are sorely needed. An example is the relationship between NCI and FDA, which has in the past been responsible for impeding progress in the initiation and conduct of clinical trials of new chemotherapeutic agents because of non-compliance of scientists and clinicians with non-clinically related matters such as improper paper work or of information misinterpreted by non-medically trained staff persons at the FDA. Fortunately, a cooperative attitude among the personnel of the two agencies is helping to resolve these problems and improve the working relationships."

7. "Decentralization within NIH of some of the mechanisms for the management of the programs and projects of the various institutes."

8. "The categorical approach to research funding continues to be a sound approach but all institutes should be more intensely oriented to the rapid transfer of technology of direct benefit to American citizens to sustain better health."

9. "Provision of competitive salaries for staff members of all of the institutes to continue to attract and keep the best scientifically and medically trained minds to sustain the best health research program in the world."

10. "Urge other nations to participate with us to their maximal ability to pool ideas and funds for worldwide programs to improve the health of all humans."

11. "Related to the above goal, ongoing efforts should concentrate on developing an international language in each health-related research field, so that the pooled information will be available and understood by all persons in health research and health care delivery. A good start has already been made in the cancer field through the creation and implementation of the International Cancer Research Data Bank."

GARB: Clinical Progress "Spectacular"

Solomon Garb, scientific director of the American Medical Center at Denver and chairman of the Citizens' Committee for the Conquest of Cancer, (whose

criticisms of NCI and HEW were included in last week's report on the hearings) said, "The outstanding accomplishment of the NCI program has been the improvement in clinical treatment of patients. It has been spectacular and beyond our original expectations."

Garb noted progress in treatment of breast cancer, testis cancer, acute lymphocytic leukemia of children, Wilm's tumor, embryonal rhabdomyosarcoma, Ewing's sarcoma, osteosarcoma, Hodgkin's disease and non-Hodgkin's lymphomas. "When I refer to progress in the clinical field, I mean lives saved, disease controlled and/or major increases in useful, comfortable life span.

"Lesser but still important progress is now becoming apparent in the treatment of cancer of the bowel and rectum, oat cell carcinoma of the lung and prostate cancer." He also mentioned the new technique of treating advanced squamous cell cancer of the head and neck with drugs before surgery.

Development of new anticancer drugs was covered by Garb. "Since 1971, six new drugs have successfully passed all animal and clinical tests and are now on the market. In addition, 55 new drugs have successfully passed tests of efficacy in animals as well as tests of toxicity in animals and are now in various stages of clinical trials. . . . I estimate that of the 55 new anticancer drugs, at least 30 will pass all clinical hurdles and eventually be on the market." Garb suggested that the search for drugs in plants be refocussed from foreign countries to the U.S. Studies at his institution and elsewhere have demonstrated that plants growing in this country have considerable potential for providing anticancer agents, he said.

The attempt by NCI to develop cancer markers "is another commendable and highly productive area of research," Garb said.

A byproduct of the cancer drug program has been "a little known accomplishment," Garb said—that some of the anticancer drugs are useful against other diseases. "Altogether, 19 diseases other than cancer can be cured or controlled with the anticancer drugs . . . . When the cancer program was first proposed, some opponents proclaimed that it was a waste since a cure for cancer would be more likely to come from a serendipitous discovery of research in other areas rather than from cancer research. The opposite has happened."

Garb defended NCI on the charges that it is giving too much emphasis to cure and not enough to prevention. "This argument overlooks the realities of cancer prevention," he said. "NCI's assigned task in cancer prevention is identification of carcinogens. It has no authority to ban use or sale of carcinogens, to require warning labels, or to inspect chemical plants. It hasn't the funds for a public relations campaign to urge people to avoid specific items." Those actions are the provinces of the regulatory agencies, he pointed out.

"How has NCI performed its task of identifying carcinogens? They have done quite well. There is every indication that NCI, its grantees, contractors and allies such as the American Cancer Society have already identified the major environmental carcinogens that are responsible for most human cancers. They have identified many hundreds and reported them in the scientific literature."

Garb named three—tobacco, asbestos and diethylstilbesterol. "To what extent has knowledge of the carcinogenicity of these materials been used by federal regulatory agencies or the public to reduce cancer? Smoking is on the increase. After some 20 years, minimal actions are being taken for the first time against asbestos exposure from construction. However, thousands of tons of powdered asbestos are discharged into the air from car brake linings each year and nothing is done aobut it. And FDA tried to ban DES in animal feed but was overruled by a court.

"Clearly, the problem is not that NCI didn't do the studies, but that after the studies were done, few people paid attention to them."

HOLLAND: Next Five Years, Even Greater Strides

James Holland, chairman of the Dept. of Neoplastic Diseases at Mt. Sinai School of Medicine and chairman of the Cancer and Acute Leukemia Cooperative Group, covered the major areas of progress in clinical research. The successful use of chemotherapy for breast cancer is being followed by the as yet limited success with chemotherapy against lung cancer. "Although this is modest," Holland said, "it is not different in principle from the small accomplishments at the outset of the improvements in results which occurred in acute leukemia and in breast cancer. It affords a basis for expecting a similar evolution. . . . In bowel cancer, stomach cancer, brain tumors, ovarian cancer and testicular cancer, the principle of chemotherapy in combination with surgery has been the basis of the programs currently in progress. Combining chemotherapy with surgery has led to results which can be characterized as 'uncertain' yet in gastric and bowel cancer, to 'very encouraging' in sarcomas, testicular and ovarian cancer. Patients with testicular or ovarian cancer with known residual disease after maximal surgery have been rendered disease free by combinations of drugs which appear to be highly specific for these types of cancer. In testicular cancer the results are particularly dramatic, and even in its metastatic form, more than half of patients are now salvaged by drug treatment. . . .

"Accomplishments in chemotherapy and in immunotherapy presage a wave of improvements in the basic methods of using surgery and radiotherapy which will constitute a truly multidisciplinary approach to the therapy of cancer," Holland continued. "Mortality differences demonstrated in the research setting will be translatable to mortality statistics for the entire country when the treatments be-

come applied on a broad basis for several years. . . .

"The application of the most modern concepts in diagnosis and therapy of cancer are found primarily in those places where cancer research is in progress. The establishment of cancer centers in a major network across the country has brought, often for the first time, effective professional staff in reasonable geographic proximity to most population concentrations in the country. Comprehensive cancer centers, specialized cancer centers, and membership in cooperative groups bring strongpoints of cancer skills to medical schools, hospitals and research institutes which often were unable to mount effective programs previously. In the South, in the West, in the Plains states, in the Pacific Northwest, indeed in every section of the country it is possible to cite the organization and flowering of cancer centers. This has led to a great increase in emphasis, accomplishment and know-how as information is transferred rapidly among people who have a committed interest.

"All of this has been accomplished in five years. This marvelous expansion of skills and of research in progress is testimony to the original premise of the panel of consultants and of the Congress that the country was ready for an intensified effort. With the apparatus in place, the next five years will see even greater strides. Five years in medical terms is a short time. We must recognize, however, that the entire National Cancer Institute has only been in existence for 40 years, and in that 40 years the United States has grasped and held the world leadership in cancer research at both fundamental and applied levels. . . .

"With the accomplishments in hand and the impact that current activities will have on future mortality, the ideas yet to be implemented and the natural pathways which lay clear ahead augur well for the future. None of this presupposes a fundamental understanding of the cause of cancer, which could make it all easier. It is absolutely imperative, however, that we continue and expand our therapeutic research and our epidemiological research so that cancers can be avoided by sensible and practical means, and if not avoided, can be treated with increasing success," Holland concluded.

NEWELL: Program Balance Proper and Correct

Guy Newell, who has been acting director of NCI since last Nov. 1 and will continue until Upton takes over, probably July 25, presented a lucid, forceful answer to most of the important criticisms of the Cancer Program.

"The goal is to develop the means to reduce the incidence, morbidity and mortality of cancer in man, and ultimately to eliminate all human cancers," Newell said. "For every age group under 35 we are accomplishing this goal—death rates from cancer for the nation as a whole are decreasing in this age group. This has been accomplished by maintaining a balanced cancer effort during the past five years of the National Cancer Program.

". . . I believe that the balance within the various components of the program is proper and correct given the constraints under which emphasis can be shifted. These constraints include scientific opportunity (first and foremost), available or potential resources (including fiscal, manpower and physical facilities), congressional mandates and wishes, commitments that incur one year and carry over into future years, increasing costs of doing business, and others.

"In spite of these constraints," Newell continued, "emphasis has shifted toward increasing efforts in environmental carcinogenesis and epidemiology and away from viral oncology; toward clinical treatment research and away from some more expensive and less productive preclinical screening efforts; toward a more rational approach to finding new drugs and away from random screening (this has begun to pay off in terms of numbers of new drugs showing activity); toward investigator-initiated grant-supported research and away from contract supported research; toward clinical trials encompassing a new approach to treating cancer with surgery and/or radiation in combination with drugs early in the course of the disease when the number of cancer cells is small and much easier to kill wherever they are in the body; toward conducting or supporting research directed to define carcinogenic chemicals in the environment and assisting appropriate regulatory agencies in taking action they feel suitable; and toward support of cancer centers and clinical cooperative groups to engage the community hospitals and practicing community physicians in cancer control activities."

Responding to criticism that NCI has ignored environmental carcinogenesis, Newell mentioned efforts recently implemented to expand the institute's emphasis in that area:

"We recently established the Clearinghouse on Environmental Carcinogens whose functions include chemical selection, experimental design, data evaluation, and risk assessment.

"Experts knowledgeable in specific areas have selected candidate chemicals, identified priorities for control, and begun to develop extensive information on about 100 chemicals. This information will be available in the form on monographs to the public, health practitioners, employers, and those who regulate occupational safety.

"Increased attention has been given to reporting results of chemical bioassays when testing and analysis of the findings are complete. Many logistical problems have been overcome or will be solved during the coming year. We expect to report on approximately 200 compounds by the end of 1977.

"We have established an Environmental Epidemiology Branch to expand studies of geographic and other variations in cancer in the U.S.

"We have reorganized the Carcinogenesis Program by establishing two associate director positions, one devoted full time to the testing program and the

other to the research program to improve on testing methods, so that substances can be identified more rapidly, efficiently, and at lower cost.

"We work closely with NIOSH and OSHA, NIEHS, CPSC, and other appropriate federal agencies. Once knowledge has been gained through our research our responsibility is to disseminate it to those agencies that have regulatory authority, to appropriate professional and lay groups, and to those in the health care system responsible for delivery of health services.

"For all of our activities in environmental carcinogenesis we spent $100.2 million in FY 74 (17.2%). In our FY 78 congressional justification this expenditure increased to $160.2 million (19.6%) of budget for an average increase of $15 million per year since FY 75. In my opinion this has been an appropriate rate of increase, given all of the competing priorities," Newell said.

Newell described the history of the much criticized Breast Cancer Detection Demonstration Project and defended NCI's handling of the mammography issue as the question of radiation hazards arose.

"This has been a period when technology, scientific knowledge, and informed opinion have changed rapidly," Newell said. "Since the BCDDPs were instituted, we have commissioned outside studies to assess the question of risk; issued guidelines to reflect preliminary answers to those questions; revised the informed consent forms of projects to apprise the women involved of change; lowered the radiation dosages delivered at the 27 centers and instituted procedures for continuous monitoring of dosage levels; commissioned a fourth report to analyze the newest data that might shed light on the problem; and scheduled a meeting to allow the scientific/medical community full participation in further determinations on the future of mammography in the breast cancer screening process."

FREDRICKSON: No Fragmentation

NIH Director Donald Fredrickson said that the Cancer Program "has no counterpart within the biomedical research sphere." The special authorities, mechanisms and advisory apparatus given NCI could have resulted in "an unfortunate fragmentation of the biomedical research conducted in this country. But this has not taken place. Most of the fears of the critics at the time the Cancer Program was initiated have not come true, and the leadership of the Cancer Institute is to be congratulated for exercising the prudence and skill required to avoid them."

Fredrickson pointed out that NCI's budget had increased from 18% of the total NIH budget in 1970 to 32% in the President's budget request for FY 1978. "In my view, this proportion should not be increased," he said.

Referring to critics who argued that cancer was a problem for basic biology and said "you can't program the unknown," Fredrickson agreed that the "ultimate solution is not yet amenable to a developmental approach. On the other hand, the expanded cancer effort was never naive in concept, and its program of fundamental investigation was appropriately strengthened as targeted efforts were intensified. The targeting in many areas was necessary and productive."

Fredrickson said that the issue of technology transfer has "altered the mission boundaries of NIH . . . For NIH to appropriately support demonstration and control efforts, there must be a question for research to answer." He said he has proposed setting up in his office an Office of Medical Applications of Research to maintain a continuing assessment of research developments.

HOLLEB: Don't Nullify Life Saving Potential

Arthur Holleb, ACS senior vice president for medical affairs, defended the BCDDP and argued for use of mammography in screening women under age 50, now suspended at the projects. Holleb noted that the Health Insurance Plan of New York in the 1960s, while demonstrating a one-third reduction in mortality from breast cancer when mammography was done in women over 50, had not been able to show an equal benefit in women under 50. "Mammography in the 1960s was not so precise a tool as it is today for examining younger breasts, which are more glandular," Holleb said.

Epidemiologists juxtaposed lack of evidence of benefit from mammography in younger women in the HIP study with presumptive risks of x-ray extrapolated from very large doses of radiation, Holleb said.

Latest BCDDP results show that more than 2,000 unsuspected breast cancers have been found, 45% by mammography alone, 30% under age 50, and that in the younger group 40% were found by mammography alone.

"The presumptive risks, if they do exist, should not nullify the life saving potential of mammography," Holleb said.

The irrepressible optimist Sen. Hubert Humphrey talked about "remarkable breakthroughs" in breast cancer, defended the program, admitted it might be improved, and delighted everyone when he commented, "I have a personal stake in all this (he had surgery for bladder cancer last year and is undergoing chemotherapy). I'll be very unhappy if they find a cure for the kind of cancer I've got two days after I'm dead. I'll rise up and complain."

Marvella Bayh, wife of Sen. Birch Bayh and a former cancer patient, said, "We've come so far. Hundreds of thousands are here today because of this progress. It's tragic that less than 30% of the approved new projects were funded this year. Perhaps the causes as well as some cures could have been found in those unfunded projects."

Author Rose Kushner, also a former cancer patient complained that ACS "is not doing a good job of public education, and NCI permits censorship—I

don't know why. . . . While the Cancer Program is not saving as many lives as we would like, it is not killing anyone."

GROUPS MUST COMPETE FOR CONTRACTS TO GET IN ON HEAD AND NECK STUDIES

Cooperative groups interested in participating in the head and neck cancer clinical trials supported by NCI's Div. of Cancer Treatment will have to compete for contract awards rather than supplemental grants, NCI has determined.

DCT Director Vincent DeVita told the Cancer Clinical Investigation Review Committee, which reviews cooperative group grant applications, that although group chairmen had expressed preference for funding with supplemental grants, they have agreed to try competing for contracts.

Deadline for submitting contract proposals has been moved back to Sept. 1. The RFP (NCI-CM-87154) originally called for a deadline of last May 20. DCT had planned to spend $1 million for trials to compare the relative efficacy of preoperative chemotherapy and adjuvant radiotherapy in the surgical treatment of advanced head and neck squamous cell carcinomas.

DCT had planned originally for the project to be offered through the RFP to institutions wishing to compete for one of probably several contract awards. But the DCT Board of Scientific Counselors, spurred on by Board member James Holland who is also a cooperative group chairman, wrung agreement from DeVita to divide the project roughly 50-50, with half going to the groups through supplements to their grants.

DeVita told *The Cancer Letter* that the decision to drop the supplemental grant ideas was made primarily "because it is easier to go with one mechanism." He said he had discussed it with Holland and other group chairmen and that they had agreed.

Holland previously had objected, contending that the groups were not organized in such a way as to enable them to compete effectively for contracts.

As for reserving half the money for the cooperative groups, that will not be possible now. They must compete on the same basis as everyone else. "They could wind up with all the money, or none," DeVita said.

DCT will not be able to fund the project until FY 1978 money is available, next Oct. 1 at the earliest. DeVita considers head and neck cancer a badly neglected field, and said that if "some exciting, really good proposals come in," more than $1 million might be made available.

DeVita told the CCIRC that "the time is ripe for a review of the entire Cooperative Group Program, another Potomac Conference." That was the three-day meeting two years ago which delved into the strengths and weaknesses of the groups and preceded transfer of the program from the Div. of Cancer Research Resources & Centers to DCT. One major result of the conference was an increased emphasis on multimodal studies.

DeVita said his staff is pulling together information on the groups, new members, various changes, and problems for a "full dress review" by the DCT Board of Scientific Counselors. He said CCIRC would be asked to participate in the review.

DeVita expressed concern that emphasis on multimodal clinical research might distort the program. "We did support the opportunity of groups to go that way, but I'm concerned that groups may be judged on the basis of their ability to go multimodal rather than on good science. . . If it's a good study, a good design, that's what is important."

CCIRC Chairman Giulio D'Angio commented that he also was concerned that the "rush to multimodal would lead to construction of a paper edifice. It could lead to a group's destruction, and did in at least one case. If a group can't mount a good multimodal effort, it should reconsider what it is trying to achieve."

"It was absolutely necessary to provide groups the opportunity to go multimodal," DeVita said. "It was absolutely predictable that some would be successful, some wouldn't. Groups should look at themselves and say, okay, we have the expertise in one disease to go multimodal, but not in another."

The effort to encourage more multimodal studies by the groups has been "relatively successful," DeVita said, "but it has raised stresses and strains."

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. Their addresses, all followed by NIH, Bethesda, Md. 20014, are:

Biology & Diagnosis Section – Landow Building
Viral Oncology & Field Studies Section – Landow Building
Control & Rehabilitation Section – Blair Building
Carcinogenesis Section – Blair Building
Treatment Section – Blair Building
Office of the Director Section – Blair Building
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NCI-CM-87163

Title: *Pharmacology and radioautography of antitumor agents*

Deadline: *Approximately Aug. 15*

Detailed investigations of the physiologic disposition and metabolic transformation of antitumor agents in the BDF_1 mouse, Sprague Dawley rat, beagle dog and rhesus monkey. Considerable strength will be required in analytical methodology and in the

chemical expertise necessary to conduct structural identifications on drug derivatives and/or metabolites.

An integral component of this project is the ability to conduct whole-body radioautography studies in mice or small rats. Ultrastructural investigations of drug induced tissue damage may also be required in some instances. It is anticipated that one award will be made for a three year period.

Contract Specialist: S. Gane
Cancer Treatment
301-427-8125

RFP NCI-CM-78158-18

Title: *Preparation and cytological analysis of fresh and cultured mammalian cells*

Deadline: *Approximately Aug. 15*

Provide the government with substantial quantities of fresh and cultured normal and neoplastic mammalian cells. These are to be used by the government in attempts to define molecular differences between normal and malignant cells, which may be exploited for improved diagnostic indicators of neoplasia and for suggesting new approaches of effective antitumor therapy. Cell cultures consist predominantly of fibroblastic monolayers, although suspension cultures are also required.

Fresh specimens, including blood and bone marrow cells (primarily leukocytes) blood serum and organs and tumors, require processing, distribution and appropriate preservation. All aspects require strict quality control and maintenance of complete records.

These services will include providing courier services for twice a day pick-up and delivery of samples and weekly meetings with the government investigators. It is anticipated that the project will require 5½ technical man-years of effort per year.

Contract Specialist: H.Lee
Cancer Treatment
301-427-8125

CONTRACT AWARDS

Title: Breast Cancer Detection Demonstration Project, one year renewals
Contractors: Cancer Research Center, Columbia, Mo., $363,127; and Good Samaritan Hospital & Medical Center, Portland, Ore., $337,891.

Title: Study of the incidence and natural history of genital tract anomalies and cancer in offspring exposed in utero to synthetic estrogens
Contractors: Mayo Foundation, $322,240; and Massachusetts General Hospital, $269,548.

Title: Assays of monocyte-macrophage function
Contractor: Ohio State Univ., $89,524.

Title: Training programs for maxillofacial prosthodontists and maxillofacial dental technicians
Contractors: Univ. of Texas System Cancer Center, $331,666 (two years); UCLA, $233,156 (two years); and Indiana Univ., $404,229 (two years).

Title: Antibodies to human organ or tissue associated antigens
Contractor: Vanderbilt Univ., $95,406.

Title: Diagnostic applications of human tumor or organ associated antigens
Contractor: Univ. of Washington, $108,032.

Title: Statistical analysis and quality control center for centralized cancer patient data system
Contractor: Fred Hutchinson Cancer Research Center, $852,398.

Title: Studies on an in vivo/in vitro system as a potential bioassay for chemical carcinogens
Contractor: Univ. of Arizona, $101,133.

Title: Role of macrophages in tumor immunology
Contractor: Univ. of Minnesota, $75,365.

Title: Immunogenicity of "spontaneous" animal tumors
Contractor: Pennsylvania State Univ., $58,082.

Title: Cells involved in the immune response to tumors
Contractor: Sloan-Kettering Institute, $73,197.

Title: Procurement of sulfolipids from mycobacterium tubercolosis strain H37 RV
Contractor: National Jewish Hospital & Medical Center, Denver, Colo., $46,675.

Title: Activated macrophages as immunotherapeutic agents
Contractor: Robert B. Brigham Hospital, $50,125.

Title: Phase I study of effects of immune stimulants on human immune response
Contractor: Mayo Foundation, $152,123.

SOLE SOURCE NEGOTIATIONS

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

Title: Holding facility for small laboratory animals (continuation)
Contractor: Litton Bionetics.

Title: Clinical Oncology Program
Contractors: Methodist Hospital of Indiana, and Southwest Texas Methodist Hospital, San Antonio.

Title: Technical support services for the ICRDB Program
Contractor: The Franklin Institute.

The Cancer Letter—*Editor* JERRY D. BOYD

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