4/22/83 DBS

THE CANCER LETTER

Vol. 9 No. 16
April 22, 1983

Subscription $125 year North America
$150 year elsewhere

P.O. Box 2370 Reston, Virginia 22090 Telephone 703-620-4646

OMB BUDGET REVISION WOULD CUT CENTERS $20 MILLION, SLASH CLINICAL EDUCATION, TRAINING, CONTRACTS FUNDS

Changes in the 1984 fiscal year budget request for NCI ordered last week by the White House Office of Management & Budget would increase the total for research grants from the $378 million in the President's January budget to $405.6 million.

(Continued to page 2)

In Brief

HELLMAN WILL LEAVE HARVARD TO BECOME PHYSICIAN IN CHIEF AT MEMORIAL; JAMES AWARDS ANNOUNCED

SAMUEL HELLMAN, director of the Joint Center for Radiation Therapy at Harvard for the last 15 years, will leave July 1 to become physician in chief at Memorial Hospital in New York. He will replace Edward Beattie, who is retiring. Beattie's title was chief medical officer, but that will be changed in deference to Hellman's specialty. Beattie is an active surgeon, and Memorial has had the reputation of being dominated by surgeons. "This tells you something about the institution," Hellman said. "Either Memorial has changed, or the reputation was undeserved." Hellman said he intends to "keep a clinical presence" but will not assume the position of director of radiation therapy when Florence Chu retires. Hellman currently is chairman of the Board of Scientific Counselors of NCI's Div. of Cancer Treatment. . . . **LUCY WORTHAM JAMES** Awards to be presented at the 36th Annual Cancer Symposium of the Society of Surgical Oncology in Denver May 1-4 will go to Nobel Prize winner Rosalyn Yalow for basic research; and Gilbert Fletcher, M.D. Anderson Div. of Radiotherapy, for clinical research. Armand Hammer, chairman of the President's Cancer Panel, will receive the James Ewing Layman's Award, and Lewis Thomas will present the James Ewing Lecture. . . . **CONGRESSIONAL HEALTH** legislative aides "are generally young, predominantly female, very well educated (but) experience high turnover rates and only 25 percent have any training in the health professions." That was the finding of a survey undertaken by the Washington firm of Grupenhoff & Endicott, which represents various health organizations. The firm concluded that health legislative aides, although politically astute, are nearly always open to properly presented views of others, willing to hear from and meet with constituents, and are generally conscientious in presenting views they have heard to their bosses. "The study points quite clearly to the need for the medicine and health community to develop a process by which it can assist a hard pressed, intelligent, and influential staff group in Congress to obtain information about biomedical research and health care issues. It is clear that such information must be presented systematically, in succinct, pithy, and intelligent lay terms, in a continuous, long term fashion."

AACI PRESIDENT CALLS OMB REVISION "PREPOSTEROUS, MOST DISRUPTIVE"

(Continued from page 1)

That $27.6 million would come from cuts in clinical education, training, contracts—and a whopping $20 million from cancer centers.

Although it appears that investigator initiated research—R01s and P01s—fared well in the revised budget, the additional money still leaves that area woefully short, although it would support an extra 300 plus more grants than estimated in the January budget. But all R01s and P01s, noncompeting as well as the new and competing renewals, would suffer substantial cuts from recommended levels.

The revision would permit NIH to meet its goal of funding 5,000 new and competing renewal grants in 1984, but the price would not be worth it.

The practice of underfunding grants to spread the money over a greater number may have been acceptable over one or two years, in emergency situations. NCI Director Vincent DeVita has commented that he fears this practice will become institutionalized; he suggested at last week's Senate hearing on the budget that some grants had to be fully funded to produce worthwhile results.

In addition to being forced to reprogram money into R01s and P01s, NCI was required to suffer a $2.6 million cut from the President's original budget, which itself was only a $5.7 million increase over the current, 1983 fiscal year budget. No explanation was offered for singling out NCI to take a reduction.

Programs in addition to centers which lost money in the revision were:

—Research career, $5.3 million, down from $5.6 million.

—Clinical education, cut from $8 million to $6 million, the same amount it is receiving in 1983.

—Training, cut from $23.5 million to $22.8 million.

—Contracts, cut from $134.2 million to $127 million.

No changes were made in the budgets for task forces, $12 million; cooperative groups, $44.3 million; minority biomedical support, $2.5 million; intramural program, $180.6 million; cancer control, $60 million; or construction, $2.1 million.

Although all the cuts would hurt, they would still leave the programs intact, except in the case of centers.

The 1983 budget for cancer center core grants is $77 million, and the January budget asked for a modest increase of $1 million. The revised budget slashed that to $58.2 million, a figure which would provide funds only for four of the 20 centers whose core grants will be up for renewal in FY 1984. No money would be available for new core grants.

As if that were not devastating enough, the centers whose grants extend past 1984 would have their funds slashed by an additional 10 percent beyond the cuts they have already been asked to take.

Eliminating 16 core grants would cut the number by about one fourth, and jeopardize the entire Cancer Centers Program. In view of past congressional support for cancer centers, as demonstrated in the National Cancer Act of 1971 and subsequent renewals, it seems unthinkable that Congress would allow the program to be dismantled by a capricious decision of OMB.

John Durant, president of Fox Chase Cancer Center and current president of the Assn. of American Cancer Institutes, commented this week on OMB's action:

"AACI recognizes this is a non-Cancer Institute instigated, ridiculous proposal that shows very little understanding of research, particularly cancer research. It couldn't possibly have arisen from within NIH or NCI. It certainly does support AACI's position that a line item for centers is needed.

"Our position is that this sort of thing must be intended to prevent collegiality between the government and universities. It is most disruptive. It is so preposterous, with no chance of succeeding, that one wonders why it was put forward."

CCOP SUMMARY STATEMENTS AVAILABLE SOON; MACFARLANE PROGRAM DIRECTOR

Summary statements of applications for NCI's Community Clinical Oncology Program awards will be completed by the end of next week and will be available to the applicants. Summary statements are critiques of the proposals, written by NCI staff based on findings of the ad hoc review committees.

Applicants may obtain copies of their own summary statements by writing to CCOP, Div. of Resources, Centers & Community Activities, National Cancer Institute, 8300 Colesville Rd., Silver Spring, Md. 20910. Summary statements which are sent out prior to the meeting of the National Cancer Advisory Board May 16-18, when awards will be approved, will not include the priority scores. After the NCAB meeting, NCI will send summary statements to all applicants, and those will have the scores.

The summary statement narrative should offer some clues on how the proposal fared in review, even without the priority score. Those who scored very well, and thus are assured of funding, probably will be obvious from the positive comments. Those which were disapproved also will be obvious. It may be more difficult for those between the extremes to determine how they stand.

It may be several more months before all of the CCOP awards will be known. DRCCA staff is facing a Catch 22 situation in determining costs. Negotiations are under way with the cooperative groups and centers which will serve as research bases over the

cost of their participation. The research bases cannot give an accurate cost until they know how many CCOPs each will be supporting; the total number of CCOPs cannot be determined until the research base costs are known.

NCI probably will fund all CCOPs falling within a certain priority score, and then fund others to help achieve some balance in geographic distribution. That inevitably would involve skipping over some applicants to fund others not scoring as well, but that practice has plenty of precedent at NCI. DRCCA executives have said that the fundable proposals are fairly well distributed around the country, and more latitude in funding by priority scores may be allowed in this program.

It is possible that some of the disapprovals may be challenged, although the appeals process for cooperative agreements has not been too well established. Applicants who disagree with the summary statement comments, whether disapproved or not, should contact Robert Frelick, CCOP project officer, at the address above.

A key staff change involving CCOP will be made soon. Dorothy Macfarlane, executive secretary of the Cancer Clinical Investigation Review Committee in the Div. of Extramural Activities, will leave that job June 1 to become program director for CCOP. She also will have some responsibilities for the Community Hospital Oncology Program. Donald Buell, CHOP program director, has moved to the Prevention Program in DRCCA where he will assist with chemoprevention activities of the division.

Frelick will continue working with CCOP, along with other activities in the Centers & Community Oncology Program of the division.

Macfarlane was recognized by NCI executives, CCIRC members and the cooperative group members who are reviewed by CCIRC to have done a superb job as executive secretary. She helped organize and oversee the review of the CCOP applications, one of the most massive peer reviews in NIH history. No replacement has been found yet for the CCIRC position.

POWERS, NCI CONTINUE DISAGREEMENT ON ORGAN SYSTEMS PROGRAM PROVISIONS

William Powers, chairman of the National Cancer Advisory Board's Committee on Organ Systems Programs, continues to disagree with NCI staff and the President's Cancer Panel on differences between the staff's interpretation of action taken by the NCAB and his version of that action.

Responding to a letter sent to Powers by Armand Hammer, chairman of the President's Cancer Panel (*The Cancer Letter,* April 8), in which Hammer said the Panel supported NCI's version of the NCAB action, Powers described for Hammer some of the points involved in the controversy:

"Your letter to me with regard to the Organ Systems Program of the National Cancer Institute speaks to the words of the directorate of NCI, but not to the actions as I have observed them over the past several years.

"The actions that prompt my concerns are as follows:

"A. Reduction of funds for Organ Systems Program.

"In the past several years the Organ Site Program has been reduced from $17.5 million yearly in 1980 to $13.5 million in 1982. This took place by a series of steps including a net reduction each time that the president recommended a rescission; the Organ Site Program budget was cut, and when the rescissions were restored, other programs were restored, but the money was still cut from the Organ System Program.

"B. Cancelation of NCAB Committee meeting.

"The Organ Site Program Committee of the NCAB which was scheduled to meet in November was canceled by a division director of NCI after having been announced in the *Federal Register* and without consultation with me or the chairman of the NCAB.

"C. Committee recommendations rewritten without committee participation.

"The recommendations prepared by the committee for the Organ Site Program were edited and changed substantially by NCI staff without the participation of the Organ Systems Program Committee, although we had submitted a revised draft that was modified to conform to the discussion held at the Feb. 2 NCAB meeting. This draft was submitted to a division director of NCI in a completed form on Feb. 3, after discussion with Dr. Carter, chairman of NCAB.

"D. Inappropriate review of Organ Site Program grants.

"Although the Committee had been assured in committee hearings by the appropriate NCI division director that the review process of multidisciplinary applications would include special ad hoc review when appropriate, in fact, this did not occur for any of the applications.

"E. Concern about phaseout of headquarters.

"We are faced with apparent phaseout of at least one of the Organ Site Program headquarters on Nov. 30, 1983. This will probably result in a suspension of activity in that organ site during the transition period until March 4, 1984, when the new award will be made. This, in effect, will reduce the momentum for the pancreatic program. Presumably NCI staff can address this problem by administrative extension.

"F. Failure to involve the Organ System Program working groups in major new projects.

"For example, a major new program on prevention of breast cancer by diet was presented to the Breast Cancer Task Force after concept review by the division board of scientific counselors and after the

request for applications had been developed and announced in ***The Cancer Letter.***

"As you are aware, I have been a member of the NCAB Committee for Organ Site Programs since the time of my first appointment to the NCAB in 1974. Thus, I have had an opportunity to observe the changes that have taken place. My great concern is that the NCI directorate seems intent on reducing the activities of the outside participants of the Organ Systems Program while preserving a very much weakened program.

"This is of particular concern to me since the present administration has proposed decentralization of government control and administration whenever possible. The Organ Site Programs which have operated mainly outside of NCI have succeeded in recruiting scientists and practicing physicians into collaborative research efforts in topics where little research had existed and are thus an excellent example of decentralized research administration. The Organ Site Programs have been particularly productive in bringing surgeons into the research programs (three programs are headed by surgeons), a need not previously met successfully by other activities of the National Cancer Program. The programs have been successful in stimulating needed research into several of the diseases that represent significant causes of death due to cancer.

"In these concerns, I do not propose malice from the NCI directorate, but rather a major difference in philosophy. I believe a significant part of program planning and communication can be accomplished best by the several hundred investigators who have been contributing time and effort to this program. They, in turn, feel they cannot have impact without some participatory involvement rather than being informed ex post facto.

"To this end, I hope you and your colleagues will consider these concerns and join with me in efforts to have a strong well funded Organ Systems Program with continued significant participation and leadership from physicians, surgeons and scientists who are outside NCI. Such an expanded program (to include additional organ systems recommended by the NCAB) will require extra funding and action by Congress.

"I join you in respect for the tremendous accomplishments over the last years due in large part to the dedicated staff of NCI."

The November meeting of the committee was canceled by Barbara Bynum, director of the Div. of Extramural Activities and executive secretary of the NCAB, when she realized it conflicted with the meeting of another Board committee. Members of the Organ Systems Committee did attend a meeting of the Budget & Planning Committee, and a full discussion of Organ Systems Program issues was held, and recommendations later were presented to the full Board.

For the record, ***The Cancer Letter*** reported on the concept approval of the RFA for the breast cancer diet studies, but the RFA itself has not yet been published (see Peter Greenwald's letter following).

Powers contends that the NCI version of the Board's February action included several significant changes from the final document which he says was approved by the Board. That document was drawn up after the Board meeting by Powers and committee members Rose Kushner and Victor Braren, copies of which were delivered to Greenwald, and later to all members of the NCAB and to NCI Director Vincent DeVita. These differences, Powers told ***The Cancer Letter,*** were:

- The NCI version says the Organ Systems Program will consist of working groups targeted to cancer of the breast, bowel, bladder, pancreas and prostate. Powers says the committee's report used the word "existing" in identifying the working groups for each of those sites, and that was not changed by the Board. "I agree, that the people in those working groups can be different," Powers said. "We just want to be sure that the existing programs are not dismantled."
- The provision which allows for creating new programs for other sites was not as explicit as Powers said his interpretation was. The NCI document used the phrase, "with consideration of the possible need to establish" new working groups for cancer of the upper respiratory tract and central nervous system. Powers said the committee language, which was not changed by the Board, specifically said that planning will begin to expand the program with two additional working groups, for cancer of the upper respiratory tract and central nervous system.
- The committee recommended and the Board apparently agreed that NCI continue the Organ Systems Branch to provide support for the program. The NCI document does not mention the Organ Systems Branch.
- The committee report recommended that the working groups would obtain information on "all relevant current and future research, including NCI grants and contracts" involving individual sites. The NCI document limits the information on research which would be supplied to the groups to that involving NCI grants and contracts.
- The committee report, referring to the working groups, used the phrase "which are already chartered committees." That phrase was omitted from the NCI document.
- The committee report included the provision that, if other organ systems are added to the program the budget would be adjusted upward to provide for them. That provision was omitted from the NCI document.

The Organ Systems Committee is scheduled to meet May 15 prior to the next meeting of the NCAB. Powers has asked for a meeting to include himself, Kushner, Braren and DeVita. DeVita said this week that he would attend the committee meeting and discuss the differences then.

Meanwhile, Greenwald responded to complaints that one working group, the Breast Cancer Task Force, had not been appropriately consulted in development of the RFA for dietary studies (*The Cancer Letter,* April 8).

Greenwald, director of the Div. of Resources, Centers & Community Activities, wrote:

"There appears to have been a misinterpretation as to the purpose of presenting the dietary intervention trials to the Breast Cancer Task Force. This was done primarily to give the Task Force information on an initiative that has come from the Diet, Nutrition & Cancer Program, another mandated program of NCI, also located in this division of the Institute. In keeping with the NCAB's advice that organ systems groups be informed of research in their respective areas, the main objective of the presentation was to provide information to help the Task Force in planning of future breast cancer projects. I have sent a letter to the Task Force to clarify for them why the presentation was made.

"Many thoughtful comments were heard from task force members, who recognize the many complexities of this new area of research. We intend to bring them to the attention of our Board of Scientific Counselors' Prevention Committee which provides oversight for these projects. Obviously when we have some groups developing initiatives focused on exposures (e.g., diet) and others focused on disease (e.g. breast cancer), there will be some overlap. I feel this is constructive interchange as no one group would be expected to come up with all of the best ideas, and furthermore, we would be remiss to not let one group know what the other is planning. It is also of interest to note that the focus of the Breast Cancer Task Force has not been concerned with new clinical trials, although the Task Force in its early days funded several trials by contract.

"The concept for the dietary intervention trials in breast cancer were presented to our division's Board of Scientific Counselors on Jan. 21, 1983. The concepts received a full discussion including many features of the design. During this time we promised to report back to the BSC's Prevention Committee and then to our full Board on the proposed design and the type of supervision and merit review that they will get. This will enable our Board to provide the necessary oversight before and after the requests for application are released. With this understanding, both concepts were approved. The projects were then presented for information to the next meeting of the Breast Cancer Task Force. The concept review and further BSC committee discussion of study management and design features will take place before release of the RFA; specific designs will, of course, be reviewed by a study section after grant applications have been received.

"I hope this clears up any misunderstandings about the status of these new initiatives."

CHOP EVALUATION REMAINS TOUCHY ISSUE, CONTRACTORS COMPLAIN ABOUT NCI PLAN

John Yarbro, president elect of the Assn. of Community Cancer Centers, was inspired to entitle his speech to the association last month, "It Ain't the Forms, It's the Instructions" (*The Cancer Letter,* March 25), by the "Pilot Data Acquisition Manual" which had been developed for the evaluation of the Community Hospital Oncology Program.

Yarbro opened his talk with an anecdote about someone he had encountered who was struggling with a one page government form he had been asked to fill out. In the zeal to reduce the size of forms, the government has geometrically increased the size of the instructions, Yarbro said, holding up a one page form in one hand and an inch-thick set of instructions in the other.

He did not say so at the time, but the set of instructions Yarbro displayed was the Pilot Data Acquisition Manual. He struck a responsive chord among many of the ACCC members present, those involved with CHOP who had been presented with the manuel to get them started with the evaluation.

Yarbro did not touch on the CHOP evaluation problems, directing his fire at NCI and FDA regulation of clinical trials. But evaluation—of CHOP now, and of the Community Clinical Oncology Program in the future—remains one of the more sensitive issues in the NCI-community oncology relationship.

Thirteen of the 17 CHOP contractors had decided to develop their own evaluation effort after NCI had declined to do so, soon after the CHOP contracts were awarded. NCI did agree to make additional funds available to pay for it. However, after their plan was written up, NCI reviewed it, decided to fund only a small part of it, and went ahead with developing an overall plan which could be pilot tested on the CHOPs and used for CCOP. All 17 CHOPs are required to participate in this evaluation.

The Pilot Data Acquisition Manual was prepared by the Statistical Analysis & Quality Control Center, located at Fred Hutchinson Cancer Research Center, under an NCI contract.

The 13 CHOPs which had worked hard on their own evaluation plan were not overjoyed at having much of that work tossed out the window. Nearly all of them were further dismayed when they saw

the manual and realized what was being asked of them.

Letters poured in to Jerome Yates, director of the Centers & Community Oncology Program of NCI's Div. of Resources, Centers & Community Activities, complaining about various aspects of the proposed evaluation. Charges were made that:

—The data burden is too large, that the proposed data load "is enormous, much of it not available, and a great deal of it unrelated to the CHOP program."

—"The scope of the data to be reported on for each site exceeds what is obtainable from our medical records and will require participation of private physicians for the acquisition of patient protocol information and personal information. I am not certain that we can realistically expect to receive such a high degree of cooperation, and there is the possibility that we are treading upon the fine line of physician confidentiality."

—"Items requested in the abstract, as well as in the coding are far more complex and more extensive than what we were led to understand."

—"This is not an evaluation. . . . It appears that the evaluation design proposed by NCI is a survey, and not an evaluation. . . . The multitude of data items suggest a large number of interesting questions passed through the minds of staff when the survey was developed. . . . The data requested is immense."

—"We were assured that the data burden would not be overwhelming and would likely be data the tumor registries would normally collect. The figure of approximately seven elements per disease was repeatedly discussed. The proposed data set has more than 20 elements per disease. . . . The proposed data collection would require at least 75 percent of the data coordinator's time."

—"The common data set form contains many items which would be essentially politically impossible to collect and provide, especially within a community setting. . . . The data which has already been collected in the evaluation part of our contract is not compatible with the data you are requesting and this would require reabstracting all these charts with a personnel and expense burden which could not be supported by the existing program."

—"This represents a level of special data collection of three to five times higher than expected. . . . It is unrealistic to expect our staff to provide the required data collection and maintain necessary registry functions simultaneously. Moreover, several NCI required data items are essentially unobtainable."

Yates met with many of the contractors during the ACCC annual meeting and discussed their complaints. The evaluation plan is "not an inflexible, concrete operation that isn't subject to some change," he said. "If you find that you are unable to do the work, we are prepared to take a look at that and to reassess that situation. If we've got evidence that there is serious underestimation. . . and clearly you can't collect all the information. . . some sort of sampling arrangement can be done."

Yates told ***The Cancer Letter*** that it "may be true" that data collection costs will exceed amounts allocated to some CHOPs for that purpose. "The pilot phase was intended to look at the problems," Yates said. "The number of questions proposed and the extent of the effort is much larger now than it will be. We're trying to see now what is workable and what isn't. We're listening to what they are saying. If they show the need for more support, we'll do the best we can to get it. If they honestly don't have the money (in the contract), we won't press them to do the work and swallow the cost. I hope we don't come to that."

Yates said in evaluating CCOP, "we'll apply what is feasible," as determined in the pilot evaluation. All CCOPs will not be doing an evaluation, but only enough to get a representative sampling, he said.

NTP PANEL COMPLETED ON DEVELOPING NEW TESTING, EVALUATION GUIDELINES

The Panel on Chemical Carcinogenesis Testing & Evaluation, established by the National Toxicology Program Board of Scientific Counselors (***The Cancer Letter,*** April 1) has been completed, with the appointment of 16 members.

The Panel is charged with development of new guidelines for the detection and evaluation of chemical carcinogens.

John Doull, professor of pharmacology and toxicology at the Univ. of Kansas Medical Center, previously had been announced as chairman of the Panel. Other members are:

Richard Adamson, director of NCI's Div. of Cancer Cause & Prevention; Perry Gehring, vice president of agricultural products R&D and director of health & environmental science for Dow Chemical Co.; Richard Griesemer, director of the biology division at Oak Ridge National Laboratory and former deputy director of NTP; Kim Hooper, chief, hazard evaluation system and information service, California Dept. of Health Services; Sanford Miller, director, Bureau of Foods, Food & Drug Administration; Ruggero Montesano, director, Div. of Chemistry & Biological Carcinogenesis, International Agency for Research on Cancer; Ian Munro, director general, Health Protection Branch, Canada Health & Welfare.

Frederica Perera, senior staff scientist, Natural Resources Defense Council; Robert Scala, senior scientific advisor, Research & Environmental Health Div., Exxon Corp.; Andrew Sivak, vice president, biomedical science, Arthur D. Little Inc.; Bernard Weinstein, professor of medicine and public health, Columbia Univ.; Gerald Wogan, head, Dept of Nutrition & Food Science, Massachusetts Institute of Technology; Norman Breslow, professor, Dept. of

Biostatistics, Univ. of Washington; Henry Pitot, director, McArdle Laboratory for Cancer Research; and James Swenberg, chief, pathology department, Chemical Industry Institute.

Breslow, Pitot and Swenberg are members of the NTP Board.

NTP BOARD APPROVES SEVEN OF 16 COMPOUNDS FOR VARIOUS TESTING

The National Toxicology Program Board of Scientific Counselors, acting on recommendations coming through the chemical selection process, approved seven of 16 chemicals for one or more further tests.

Twelve of the 16 recommended for tests by the NTP Chemical Evaluation Committee were thiazole compounds nominated by NCI.

Compounds selected by the Board for short term tests were 2-thiazolamine, 4-(6-methyl-2-benzothiazolyl) benzenamine, 5,6-dichlorobenzothiazolamine, C.I. basic red 29, and 2-octyl-3-isothiazolone.

Butyl benzyl phthalate, a plasticizer with polyvinyl chloride which has wide occupational and other exposure, was selected for reproductive toxicity testing with a high priority, and for carcinogenesis testing in male and female rats with a moderate priority. It also had been nominated for neurotoxicity testing, but the Board voted not to include that in its recommendation.

The Board approved carcinogenesis testing, with a low to moderate priority, for 6-methoxy-2-benzothiazolamine, an azo dye intermediate used to detect occult blood in biological fluids.

The Board rejected further testing of thiazole; 5-phenyl-s,4-thiazolediamine; N,N-diethyl-4-(5-nitro-2-thiazolyl) azo benzenamine; cromolyn sodium; 3-methyl-5-isothiazolamine; D-fructose; thiabendazole; 4,4-bithiazole-2,2-diamine; and 2-mercapto-4-methyl-5-thiazolyl methyl ketone.

UICC ANNOUNCES FOUR FELLOWSHIP, GRANT PROGRAMS FOR WORK ABROAD

The International Union Against Cancer has announced the availability of fellowships and grants in four programs designed to encourage the international exchange of science and cancer investigators.

Those interested in participating in any of the programs may contact International Union Against Cancer, rue du Conseil-General, 3, 1205 Geneva, Switzerland, for application forms and further information.

The programs are:

• **Cancer Research Campaign International Fellowships**

UICC, with funds provided by the Cancer Research Campaign (UK), will award fellowships for research on cancer. These are designed to enable investigators to work abroad to gain new experience in clinical or basic research in cancer. These fellowships are also open to investigators in the behavioural or social sciences relevant to cancer.

Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories or similar institutions. Applicants must have between two and 10 years' postdoctoral experience (PhD, MD, DVM) or equivalent.

A fellowship will not be granted to a person who wishes to perfect his training or who wishes to visit briefly several institutions abroad. The duration of the fellowships ordinarily will be one year but this period may be longer or shorter in special circumstances.

The stipend will be fixed on the basis of £9.000 per annum adjusted to the cost of living in the host country. The fellow will receive a travel allowance towards the cost of a tourist/economy class air fare. A similar allowance will be granted to the spouse who wishes to join a fellow for six months or more.

Deadline for receiving applications and supporting documents is Oct. 1. Successful applicants may begin their fellowship at any time during the 12 months period beginning May 1.

• **American Cancer Society Eleanor Roosevelt International Cancer Fellowships.**

UICC, with funds provided by the American Cancer Society, will award fellowships for research on cancer. The awards will be granted to experienced investigators who have demonstrated their ability for independent research and who wish to broaden their experience by a period of study at a single institution in another country.

Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories or similar institutions. Awards will be made to investigators who are devoting themselves either to the experimental or the clinical aspects of cancer research.

Fellowships will not be granted to persons who wish to perfect their training in methods of cancer detection or in therapeutic techniques, or who wish to visit briefly several institutions abroad.

The duration of fellowships will be one year but in special circumstances this period may be longer or shorter. The stipend will be based on the current salary of the applicant and the salary of an investigator of comparable experience in the place where the applicant expects to study. An allowance will be made towards the cost of travel of the fellow and of those dependents who will accompany him.

The deadline for receiving applications and supporting documents is Oct. 1. Successful applicants may begin their fellowship at any time during the 12 months period beginning May 1.

• **The Yamagiwa-Yoshida Memorial International Cancer Study Grants.**

The Yamagiwa-Yoshida Memorial International

Cancer Study Grants are funded by the Japan National Committee for the UICC. These study grants are administered by the International Union Against Cancer. They are designed to enable investigators of any nationality to gain experience in, or make comparative studies of, special techniques in both the biological and clinical aspects of cancer research.

The study grants will not be awarded for the purpose of visiting a number of institutes or of solely participating in congresses, conferences, and symposia. They will be awarded for periods not exceeding 90 days.

Each grantee will receive a travel allowance toward the cost of a tourist/economy air fare, and a living allowance toward the cost of board and lodging. No allowance will be paid for dependents.

The closing dates for receipt of applications will be June 30 or Dec. 31 of each year. Successful applicants will be notified within 90 days of each closing date.

• **International Cancer Research Technology Transfer Programme.**

UICC, with funds partly provided by the International Cancer Research Data Bank (ICRDB) of the National Cancer Institute of the United States, and partly by the International Union Against Cancer, will award International Cancer Research Technology Transfer grants for research on cancer.

The purpose of this programme is to promote direct and rapid person-to-person transfer of information about new or improved techniques or methods between investigators located in different countries who are working in areas of basic, clinical or behavioural research in order to further the progress of cancer research.

The available funds are designed to permit investigators of any nationality to visit a research centre or centres abroad for a period not exceeding 28 days. The grant will be allocated towards travel and living expenses.

The selection of applicants will be on a continuing basis and the results will be communicated as rapidly as possible. In accordance with U.S. federal regulations, this programme is not open to employees of U.S. government agencies.

CANADIAN PRODUCES ANTICANCER DRUGS WITH PLANT TISSUE CULTURE TECHNOLOGY

Anticancer drugs will become less expensive thanks to a new technology called plant tissue cultures, a scientist said at the 185th annual meeting of the American Chemical Society. James Kutney, Univ. of British Columbia, said at the meeting in Seattle that his group has already produced a fivefold increase in the yield of one component of anticancer drugs, catharanthine, and a 20-fold incrdase of the potential anticancer drug, tripdiolide. He and his colleagues have also made progress toward producing two popular and expensive drugs, vincristine and vinblastine.

The first commercial use of plant tissue cultures for drug production is expected to be in Germany, Kutney said. A major pharmaceutical company will produce digitalis, a heart stimulant derived from foxglove plants, within the next few years. In the future, this technology will be used to produce a variety of drugs and, with some genetic engineering, new foods. One laboratory at Kansas State Univ. has produced a cross between a tomato and potato called a pomato.

The optimized tissue culture does not just produce a maximum amount of drug or other target compound; it yields a product that is easier to purify. A typical plant extract might contain over 200 contaminants, and the drug might be at a concentration of only three parts per million.

Kutney noted that another advantage of tissue cultures is that they can be grown anywhere. The periwinkle is grown on plantations in tropical regions. The yew which Kutney used comes from China, and another plant used by him grows only in Ethiopia and Kenya. With tissue cultures, there is no worry that the source of the compound is in a hostile or inaccessible region, and there is no danger that the plants will be destroyed by a storm or a freeze.

To start a tissue culture, Kutney takes a clipping from a plant, sterilizes it, and imbeds it in a solid, nutrient-rich medium. A solid mass of cells, called a callous, grows at the edge of the clipping.

Cells from the callous are then grown in a few ounces of liquid medium. If tests show that potential anticancer drugs are present, the cells are grown in progressively larger flasks, all the way up to 15 gallons. The 15 gallon amount provides enough of the compound for rigorous biochemical tests.

If tests show that anticancer compounds are still present, Kutney works to improve the process. He increases drug yield by varying conditions such as temperature, light, amount of shaking, and nutrients.

"It's still cheaper to grow a carrot in the ground," Kutney said, "but pharmaceuticals, which can sell for thousands of dollars a gram, are cheaper to produce in a fermenter."

The Cancer Letter _Editor Jerry D. Boyd

Published forty-eight times a year by The Cancer Letter, Inc., P.O. Box 2370, Reston, Virginia 22090. Also publisher of The Clinical Cancer Letter.