THE CANCER LETTER

Vol. 10 No. 31
Aug. 3, 1984

Subscription $150 year North America
$175 year elsewhere

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HOUSE COMMITTEE ADDS $73 MILLION TO PRESIDENT'S NCI BUDGET, ONLY $13 MILLION UNDER SENATE FIGURE

The House Appropriations Committee last week added $73 million to the President's request for NCI's 1985 fiscal year budget, just $13 million less than the increase approved by the Senate Labor-HHS Appropriations Subcommittee in June. The House
(Continued to page 2)

In Brief

OSCC STAFF APPOINTMENTS ANNOUNCED; REPORT AVAILABLE ON CHEMICAL DISPOSAL HEALTH ASPECTS

STAFF APPOINTMENTS for the new Organ Systems Coordinating Center have been announced by Gerald Murphy, director of Roswell Park Memorial Institute where the center will be located: James Karr will be the chief coordinator and liaison with the Prostate Cancer Working Group; he's been associated with the phased out National Prostatic Cancer Project which was headquartered at RPMI. Arthur Hilgar, who has been with the National Bladder Cancer Project at Worcester, Mass., will be associate coordinator and liaison with the Bladder Cancer Working Group. Charles Liebow, who has been with the National Pancreatic Cancer Project in New Orleans, will be liaison with the Pancreas and Large Bowel Cancer Working Groups. Clement Ip, from the RPMI staff, will be liaison for the Breast Cancer Working Group. Murphy was to confer with NCI staff this week on selection of working group members and chairmen. Each group will meet twice a year to review research in its respective area and initiate recommendations for new research to be submitted to NCI's boards of scientific counselors for concept review. The groups will publish a total of 30 newsletters a year; those who would like to be on the mailing list for one or more should contact Murphy at RPMI, 666 Elm St., Buffalo, N.Y. 14263. . . . **DRAFT REPORT** of the panel on health aspects of chemical disposal commissioned by the Universities Associated for Research & Education in Pathology will be available for public review and comment in September. The panel is chaired by Joe Grisham of the Univ. of North Carolina. The report will include discussion of exposures, health effects, methods of studying waste disposal sites, and an analysis of toxic substances and sites. Copies may be obtained by writing ESP Draft Report, UAREP, 9650 Rockville Pike, Bethesda, Md. 20814. . . . **NORTHERN CALIFORNIA** Cancer Program was the institutional applicant for NCI's National Drug Discovery Group competition, not Univ. of California (San Francisco) as previously reported. Victor Levin of UCSF is the principal investigator. UC (Berkeley) and Bristol are participating.

NCI LIKELY NOW TO GET $100 MILLION INCREASE OVER FY 1984 BUDGET TOTAL

(Continued from page 1)
committee's action thus assures NCI of an increase close to $100 million more than the 1984 budget.

Action on both bills by the full House and Senate and a conference to resolve the differences are still ahead. Congress will adjourn for the Republican National Convention this month, but it is possible that a completed appropriations bill could be on the President's desk before the 1985 fiscal year starts Oct. 1. So far, the White House has not indicated any serious opposition to the measure, so the President is likely to sign it.

The Senate figure for NCI was $1.188 billion. This included a number of programs yet to be reauthorized, including research training, cancer control and construction. The House committee omitted those items and its total for NCI is shown as $1.084.9 billion. However, the committee noted that it had added $73 million to the budget request submitted by the White House in February.

The House and Senate usually split their differences down the middle on NIH appropriations. With the House figure $13 million under the $110 million increase over 1984 arrived at by the Senate committee, halving that would give NCI an increase of $104 million.

Considering the mood of both House and Senate committees last year and this, a major portion of that increase will go toward paying full recommended levels of grants, and probably this year including cancer center core grants and clinical cooperative groups.

The Senate committee decreed that its figure would permit funding of a sufficient number of additional grants to elevate the priority score payline from about 170 to 190.

The Senate committee also earmarked $6.6 million for construction and renovation grants, and $7.6 million more than in the budget request for clinical trials.

The final appropriation this year probably will fall $6 or 7 million under NCI's 1985 bypass budget request, the second consecutive year in which Congress has given NCI virtually all it asked in the bypass budget and vastly more than in the NIH-HHS-OMB approved budget. This obviously demonstrates that the congressional committees are paying more attention to the National Cancer Advisory Board and the scientific community than they are to the watered down budgets from the Administration. The next challenge: Getting the 1986 bypass request of $1.45 billion approved as the down payment on the Year 2000 goals.

DCBD BOARD APPROVES CONCEPT FOR RFA ON CYTOGENETICS AND PREDISPOSITION

The Board of Scientific Counselors of NCI's Div. of Cancer Biology & Diagnosis approved the concept for a request for applications to stimulate research in cytogenetics and predisposition to cancer but not before expressing reservations about the impact of RFAs on amount of money available for RO1 and PO1 grants.

The project would fund approximately five grants for three year periods at an estimated total cost of $625,000 a year.

The RFA was proposed by DCBD's Diagnosis Branch with the following justification:

"The object of this potential program initiative would be to encourage studies which will investigate the possibility that heritable sites on chromosomes, such as fragile sites, from normal individuals can serve as helpful tools for more accurately assessing the individual's predisposition to cancer. Some of the questions that need to be explored include: Are there more fragile sites than currently have been defined? What is the incidence of individual fragile sites? Are there other classes of site specific chromosome instabilities that might be useful for studying predisposition to cancer? How do these sites correlate with the occurence of different human cancers and/or with known changes in chromosome structure regularly associated with specific types of human cancers?

"Although genetic alterations have been assumed to underlie the formation of tumors, the first clear connection between a specific genetic change and a particular malignancy was the consistent observation of the Philadelphia chromosome in patients with chronic myelogenous leukemia. Since then, many other chromosomal averrations, e.g. translocations, inversions, duplications and deletions, have been shown to occur nonrandomly and consistently with specific types of cancer.

"The nonrandomness of observed alterations in a number of specific types of cancer suggests that normal chromosomes may contain site specific properties which increase the potential for karotypic change and/or instability. Fragile sites appear to be examples of classes of sites which may predispose chromosomes to specific breakages. They have been defined as heritable points on human chromosomes which under certain culture conditions appear in metaphase as nonstaining gaps. The term fragile has been used because these nonstaining regions coincide with chromosome breakpoints and sites of rearrangements. Most of these sites have been identified in cells grown in medium deficient in folic acid and thymidine. There are currently 21 fragile sites (18 rare and three

common), as defined above; they occur on 13 chromosomes. Aphidicolin, an inhibitor of DNA polymerase, also has been shown to induce non-random chromosomal gaps and breaks in cultured human lymphocytes.

"A recent commentary provides a summary figure and discussion of the relationship of the best known heritable fragile sites, chromosome averrations in cancer and oncogenes (Le Beau, M.M. and J.D. Rowley, 1984, "Nature" 308:607). Already, a number of chromosomal abnormalities observed in leukemia and lymphoma have been shown to be highly correlated to regions of chromosomes known to contain fragile sites. However, the basic question of whether fragile sites generally act as predisposing factors for chromosomal rearrangements involved in human cancer remains an exciting area for future genetic research.

"The intriguing preliminary observations from a few laboratories working on the problem combined with the potential importance of fragile sites as predisposing factors of cancer have prompted NCI to encourage additional research in this area. Since only a few laboratories are studying this problem directly and considerable data will be required before a predictive relationship between fragile sites and any cancer can be established, it is reasonable to encourage new laboratories and laboratories working in peripheral areas to develop research programs focused on this problem. Clearly, this will remain an important area of research for many years into the future. Techniques need to be improved and new ones developed; heritable patterns and incidence of fragile sites need to be determined; and more definitive correlations with different cancers and chromosome changes need to be established."

"You're going to see over the next few years attempts to stimulate new approaches in diagnosis through RFAs and program announcements," DCBD Director Alan Rabson said. The award rate for diagnosis RO1s has not been very good, he noted.

Board member Susan Zolla-Pazner suggested that, considering the ceiling of 5,000 new and competing grants imposed on NIH, whether new grants stimulated by RFAs would take money out of the pool available for RO1s.

"No," Rabson answered. "This is money allocated above the RO1/PO1 pool. I hope we will have the opportunity to fund all the top grants. We will fund only those grants with top priority."

Brian Kimes, acting chief of the Diagnosis Branch, said, "There is money to fund more than 5,000 grants. We don't feel it should be limited to 5,000, but we're interpreting that as the intent of Congress," referring to statements by the Appropriations Committees that they had added money to the NIH budget to meet the goal of funding 5,000 grants.

"We're not trying to get something funded that wouldn't get funded on its merit," Rabson said. "This is an attempt to stimulate new initiatives."

"Do you really stimulate grants to be written that wouldn't be otherwise?" Zolla-Pazner asked.

Rabson cited the RFA on application of recombinant DNA technology to diagnosis. "We got 19 applications, and I don't think we would have without the RFA."

Zolla-Pazner said that the staff's description of the field indicates that a number of investigators "are on the brink of moving in. Do you really need this RFA?"

"I don't think many will (without it)," Rabson said.

Ihor Masnyk, director of DCBD's Extramural Research Program, referred to the Board's rejection of a concept last year for a contract supported project to conduct research in multiple markers for breast cancer (**The Cancer Letter**, Nov. 4). "Not a single proposal has come in," Masnyk said.

"That wasn't the basis that we did not approve it," Board member Nelson Fausto said. Board members objected because, they said, single markers and multiple markers had not been found useful in a substantial number of studies.

"The objective is to get some good studies started, so good they can then compete in the RO1 pool," Kimes said. "Developmental research is hard to get funded. This really is developmental, not basic research. We are trying to use the results coming from basic research and carry it a step further."

"If this would generate some really good grants, okay, but I'm concerned about funding exceptions," Board member Robert Perlman said, referring to NCI's practice of sometimes funding grants which scored over the payline.

"We can only go 20 points below the payline," Rabson said.

"This is not a question of supporting poor research," Kimes added. "A lot of good research is not getting funded."

Board member Peter Nowell noted that of every 100 patients who receive alkylating agents, "we know that one or two will develop leukemia. Is there a way of looking at them, looking for subclinical chromosome fragility? What we should look for is development of techniques to look at this."

"A great deal of information is coming out of basic research on chromosome instability," Kimes said. "We need a way to look at it to see if it will have any predictive value."

"If we were to get oodles of applications, with a large number of them fundable, we couldn't fund them all," Sheila Taube, program director for the RFA, commented.

"I don't think there are that many people who can do this work," Board member Nancy Kleckner said.

"We have to be careful we don't stimulate too many applications for the amount of money we've put aside," Kimes said. "If we get 30 applications and fund only four, the rest are at a disadvantage. They would have done better competing in the RO1 pool."

"The issue is, are there sufficient laboratories working on this now?" Taube said. "Are there people working on the periphery who can be encouraged to work on applications of this to cancer diagnosis? Currently, only two grants funded by NCI are working on this. RFAs stimulate more applications than program announcements. We would like to have a sufficient number of applications to determine how much work is going on in this area."

"I'm delighted to see some interest in this area," Nowell said. "Chromosomes can point out sites of specific genes and some of the mechanisms by which they may be altered. Certain instability at specific sites may make people more prone to cancer. I would suggest you expand this to look for other classes of other chromosome instabilities, and not limit it to site specific."

Board Chairman Matthew Scharff recommended approval of the concept "as is," and it was unanimously.

Kimes reminded the Board that one of its major recommendations last October, when it approved reorganization of the division's Diagnosis Research Program, was to establish an ad hoc advisory group for the program. "That is in place," Kimes said, presenting the Board with a list of 41 members, including all the Board members, some NCI staff, and others from the scientific community.

"There is a major change in philosophy on how the Diagnosis Program works," Kimes said. "We're at the level now to promote basic research translation into applied research. The major problem is to set priorities on what we are going to do."

Kimes gave the Board a report on the fate of program announcements and RFAs implemented over the past two years:

*Immunohistochemical classification of solid tumors—13 applications received, 10 approved, three disapproved, two fundable.

*Development of myeloma or human B cell lines for production of human monoclonal antibodies—six applications received, six approved, two fundable.

*Immunohistochemical classification (as above, second round)—six received, four approved, none scoring in the potential funding range.

*Specific immunoassays for cancer associated isoenzymes—nine applications, eight approved, none fundable.

*Noninvasive approach for detection of lung cancer—Two applications, one approved, none fundable.

*Human monoclonal antibody production (second round)—two received, both approved, one fundable.

*Immunohistochemical classification (third round)—six received and approved, one fundable.

*Immunoassays for isoenzymes (second round)—three received and approved, none fundable.

*Lung cancer detection (second round)—one received and disapproved.

*Monoclonal antibody production (third round)—one received and approved, not fundable.

Two more immunohistochemical classification applications and one for specific immunoassays for cancer associated isoenzymes have been received and will go to the National Cancer Advisory Board in September if approved and fundable.

Nineteen applications have been received in response to the RFA for recombinant DNA technology application to diagnosis of cancer, published in September, 1983. Those approved and fundable also will go to the NCAB next month.

Kimes discussed an analysis he had made of the immunohistochemical applications, of which only three of 25 were fundable. Only a small percentage of those which were unsuccessful were from applicants who are consistently unsuccessful, Kimes said. A large number were first time applicants who probably could be helped by advice and assistance from NCI staff.

"A third group bothered us more," Kimes said. "Those were people who have been successful in basic research and who were trying to take their work to the clinic. They came out poorly."

Kimes noted that only 15 per cent of approved grants assigned to the Diagnosis Research Program were fundable, compared with 30 per cent overall for NCI. "We have to ask ourselves why?"

Fausto and Zolla-Pazner suggested that one reason might be that the RFAs gave only a lead time of three months before applications were due, and that six months might permit preparation of more successful applications. Kimes responded that the immunohistochemical applications were in response to a program announcement which are open ended, with three cycles a year.

Fausto, commenting that he had served on several study sections, said among the reasons diagnosis applications are not funded are, one, "the quality of the applications, but also, there is a bias against diagnosis applications. If you can make diagnosis an extension of basic research, and write

a good application, it will have a good chance of getting funded."

Rabson said that part of the problem on the immunohistochemical applications was that "everyone wanted to do tests but did not say what they were going to do to follow up."

"We put a lot of effort into helping the unsuccessful applicants understand the review, to help them succeed next time," Kimes said. "We want to make sure people understand what the problems are."

In the reorganization of the Diagnosis Program, Kimes is acting chief of the Diagnosis Branch (he remains as chief of the Biology Branch); Taube heads the Biochemistry/Genetics Diagnosis Section; Bernice Radovich heads the Immunodiagnosis Section; and Robert Aamodt heads the Pathology/Cytology Section.

YOUNG INVESTIGATORS DO BETTER THAN ELDERS IN COMPETING FOR NIH GRANTS

One of the long time concerns of members of the scientific community, including NCI staff members and their various advisory bodies, has been what they perceived to be the great difficulty young investigators have in getting their grants funded by NIH.

The Board of Scientific Counselors of the Div. of Cancer Treatment at its winter meeting this year discussed at length the threat to biomedical research posed by the problems young scientists have in getting started. Some members suggested that NCI and NIH should consider new programs specifically geared to helping young investigators.

Gregory Curt, special assistant for clinical affairs to DCT Director Bruce Chabner, undertook a survey of NIH grants awarded since 1970, analyzing grant applicants by age group, professional degree and whether they were new investigators at the time of initial application and at time of competing renewal.

What Curt came up with may have documented that the picture of struggling young investigators losing in their fight to break into the system is a myth. If any age group needs some help, it may be their older colleagues who seem to experience increasing difficulty in getting their grants funded as they enter their 40s.

Curt found that applicants 40 years old or older "tended to fare slightly more poorly than the overall average, 27.4 per cent in NIH and 24.5 per cent in NCI" in competing for type 1 (new) RO1 grants in 1983. The overall success rate for NIH was 29.4 per cent and for NCI 26.4 per cent. "Interestingly, the younger the applicant, the greater the chance for success," Curt said. "Those younger than 35 years enjoyed a 38.4 per cent success rate in NIH and a 39.7 per cent success rate in NCI, with a trend towards poorer scores with increasing age."

Curt found that over the past decade the percentage of competing grants awarded to new investigators, i.e., people who have not previously held an RO1 or PO1 grant, has remained relatively constant at 10 per cent. Between 1975-1980 the rate averaged 12.6 per cent for NIH as a whole and 12 per cent for NCI. "Fluctuations in the entry rate of new investigators into the total investigator pool each year are closely related to the number of competing awards that can be made during that year. Looking at type 1 RO1s specifically, approximately all new (type 1) project principal investigators receiving awards each year are scientists supported for the first time as principal investigators on NIH research grants. . .

"Looking at NIH as a whole, over the past decade, the percentage of type 1 awardees who were new decreased from 58 to 50 per cent. During the same period, the percentage of all type 1 RO1 applicants who were new decreased from 45.2 to 35.4 per cent. At NCI, new type 1 awardees have remained relatively stable at about 50 per cent of all awardees while over the same period the percentage of type 1 applicants who were new actually decreased somewhat, from 33.7 per cent to 28.6 per cent of all type 1 applicants. These data suggest that new type 1 applicants may compete more effectively in the review process, and this is confirmed by more detailed analysis."

Younger applicants at time of competing renewal (type 2 applications) also are more than holding their own, Curt found. "As expected, type 2 applications generally fare better than type 1, with an overall success rate of 49.7 per cent (in 1983). However, it is clear that the impact of age is similar to that seen in type 1 proposals; younger investigators do better. Applicants younger than 35 have an overall success rate of 58 per cent, and there is a trend towards declining success with increasing age."

Curt recalled that another concern raised by the Board was that recent changes in the technical complexities of investigative science might be working against investigator initiated projects from MDs. Since 1970, he said, "Again, the success rate varies with total monies available for funding, but PhDs have long had somewhat better success rates than MDs. However, this difference is small, averaging only 4.7 per cent over the decade, and their is no trend towards an increase in this gap. MDs and PhDs had substantially identical success rates in 1970 and 1980. This pattern is in contradistinction to the pattern of RO1 success rates for MDs and PhDs in the entire NIH RO1 pool. Here MDs in

earlier years enjoyed somewhat higher success rates, although more recently, PhDs fare somewhat better. The success rates for all competing MD applicants in the NIH RO1 pool fell from 44 per cent in 1970 to 31.6 per cent in 1982, while the success rates of PhDs changed little, 36.5 per cent in 1970 and 33.1 per cent in 1982.

"What has changed dramatically between the mid 60s and the present is the percentage of MDs and PhDs applying for and receiving grants. While the number of MD applicants has increased relatively slowly and MD-PhD applicants have remained relatively stable over this period, the number of PhD applicants has increased substantially. This trend has had the expected effect on the composition of first time grant recipients. Again, while the number of MD awardees has increased slowly and the MD-PhD awardees have remained relatively stable, the number of first time PhD recipients has continued to grow. Thus, in 1970 PhDs were principal investigators on 54.6 per cent of all NIH grants. In 1982, this percentage increased to 67.5 per cent. Over the same time period, MDs as principal investigators fell lfrom 33.8 per cent to 22.3 per cent of all RO1 grants, although the total number of MD-initiated proposals actually increased from 1,843 in 1970 to 2,831 in 1982. At NCI, the changes have been similar.

"An important question is what factors contribute to MD success in obtaining a grant. This correlates quite closely with time spent in postdoctoral research training... MD applicants with less than 30 months of postdoctoral training do not fare well in the grant process, with an overall success rate of approximately 10 per cent, while those applicants with more than 30 months of training fare much better, with success rates which in fact exceed those of PhDs with a similar amount of postdoctoral training. It is these data which indicate the need for more extensive research training of physicians, as Dr. (James) Wyngaarten (NIH director), said, rather than what he has called the 'toe in the water' one or two year lab experience offered by training grants. The importance of postdoctoral training is less clear for PhDs. Although there is a trend for greater success with 31 or more months of postdoctoral training, the relation is less striking, probably because PhDs have significant research training integral to their degree process."

The breakdown of MD and PhD applicants by age group further supports the finding that youth, with everything else it has going for it, seems to be outperforming its elders intellectually despite the supposed advantages of wisdom and experience that go with age.

From 1970 to 1980, "not only do new MD applicants fare better than all competing MD applicants, but they fare significantly better than type 1 applicants who are not applying for the first time. Over the decade, first time type 1 applicants average a 10 per cent higher success rate than other type 1 applicants.

"The same data can be generated for PhD applicants in the RO1 pool. Again, there is a consistent trend for proposals from new applicants to fare better than proposals from applicants who are not new. Over this decade, type 1 proposals from PhD first time applicants have enjoyed an average 14 per cent better success rate than applications from PhDs who had previously submitted a grant. These trends also hold for NIH as a whole."

Curt summarized his findings:

*New PIs on NIH RO1 projects account for over 10 per cent of all awards.

*About half of all type 1 ROIs awarded each year go to investigators who have never held a grant.

*First time applicants have a higher success rate for funding than those who have had prior awards.

*Young investigators defined as under 40 are more successful at type 1 and type 2 competition than older applicants.

*The number of first time grant recipients with MDs has grown relatively slowly. The percentage of MDs has declined due to the large increase in the number of PhD applicants.

*Within NCI, PhDs have had a small, consistent edge in RO1 success. However, MDs continue to compete effectively for RO1 monies, with no overall change in their success rate over the past decade.

*For all of NIH, the success rate for PhDs has been increasing relative to MDs. However, these differences are small.

*For MDs, the likelihood of applying for and receiving a grant correlates with length of postdoctoral training. Those MDs with more than 30 months of research training fare well in the grant process.

DCE BOARD OKAYS CONCEPTS FOR SIX NONCOMPETITIVE CONTRACT PROGRAMS

The Board of Scientific Counselors of NCI's Div. of Cancer Etiology gave concept approval to six noncompetitive contract supported projects and interagency agreements at the Board's recent meeting.

The Board also gave permission to proceed on a study of the etiology of tumors in bottom dwelling marine fish which had received tentative concept approval at a previous meeting, pending a site visit by staff and representatives of the Board.

The fish study is being carried out through an

interagency agreement with the National Oceanic & Atmospheric Administration, with an estimated first year cost of $220,000. NOAA is studying fish in Puget Sound with increased incidences of liver tumors, primarily flounder and English sole.

Board member Dietrich Hoffmann, who participated in the site visit, said that 16 per cent of the fish being collected have liver tumors. Sediment in that area of Puget Sound contains carcinogenic compounds, Hoffmann said.

Board member Edward Bresnick commented that fish systems being studied "offer interesting possibilities." English sole as young as two years are developing liver tumors, a short latency period. "This is a very sensitive species." He suggested one potential use, as a screening system for chemotherapeutic agents, and another, for testing suspected carcinogenic compounds "if a method could be developed to expose them in tanks."

DCE Director Richard Adamson added that "it could be a cheap model, to give answers quickly in monitoring lakes and streams." It was later acknowledged that a fresh water model would be required for lakes and streams, since sole and flounder are strictly salt water fish.

Board member Donald Davies said he did not think that model would have much relevance to human cancer, but Hoffmann responded that it could be worthwhile "if only because of exposure to humans eating the fish."

Other noncompetitive concepts approved:

—Operation of a registry of tumors in lower animals, Smithsonian Institution, $260,000 a year estimated, five years.

—Hepatitis B virus and liver cancer in Army veterans of World War II, National Academy of Sciences, $75,000 a year, four years; and Veterans Administration Medical Center, $100,000, one year.

—Collection of clinical specimens for studies on African lymphoma patients and controls, Univ. of Ghana Medical School, $40,000 year estimated, three years.

—Radiation risk estimation in Israeli children irradiated for tinea capitis, Chaim-Sheba Medical Center, $45,000 year estimated, two years.

—Solar ultraviolet radiation measurements, NOAA, $50,000 year estimated, two years.

—Industry and occupation coding of death certificates, National Center for Health Statistics, $70,000 first year, four years.

CANCER LETTER TAKES TWO WEEKS OFF; NEXT ISSUE TO BE PUBLISHED AUG. 24

The Cancer Letter will not be published during the weeks of Aug. 10 and 17 while the staff takes a couple of weeks off, NCI dozes through the dog days and Republicans in Congress head for Dallas. The staff of **The Cancer Letter** will be back on the job Aug. 20 and the next issue, Vol. 10 No. 32, will be published Aug. 24.

NEW PUBLICATIONS

"Stay Healthy America!," edited by Arthur Fisher and published by the Cancer Prevention & Control Program of Duke Univ. Comprehensive Cancer Center. A 36 page, four color booklet for lay persons. Single copies available free, bulk orders for a modest per copy charge. Single copies and costs of bulk orders available from Dr. Seymour Grufferman, Director, CPCP, Box 3958, Durham, N.C. 27710.

"Diet, Nutrition & Cancer Program Status Report, 1981-82," published by Capital Systems Group. Free copies available by phoning 301-881-9400.

"Advances in Cancer Control: Epidemiology & Research," edited by Paul Engstrom, Paul Anderson and Lee Mortenson. Alan R. Liss, 150 Fifth Ave., New York 10011, phone 212-741-2515. $58.

"The Doctors' Anti-Breast Cancer Diet: How the Right Foods Can Reduce Your Risk of Breast Cancer," by Sherwood Gorbach, David Zimmerman and Margo Woods. Simon & Schuster, 1230 Avenue of the Americas, New York 10020. $15.95.

"Nucleotide Sequences 1984," the first international compendium of nucleic sequences. Represents data bases of the Genetic Sequence Data Bank and the European Molecular Biology Laboratory Nucleotide Sequence Data Library. Two volumes. IRL Press, Suite 907, 1911 Jefferson Davis Highway, Arlington, Va. 22202. $75.

"Cancer Patient Education," edited by Barbara Blumberg. Human Sciences Press, 72 Fifth Ave., New York 10011. $12.95.

"Antineoplastic Chemotherapy," by Helmut Kuemmerle. Fundamental groups of antineoplastic substances and their clinical application. Thieme-Stratton, 381 Park Ave. South, New York 10016, phone 212-683-5088. $75.

"Looking Forward—A Guidebook for the Laryngectomee," by Robert Keith, Howard Shane, Harvey Coates, and Kenneth Devine, all of the Mayo Clinic. Revision of the 1974 edition. Thieme-Stratton, address above. $5, with discounts for multiple copy orders.

"Understanding Breast Cancer: Clinical and Laboratory Concepts," edited by Marvin Rich, Jean Hager and Philip Furmanski, all of AMC Cancer Research Center. Marcel Dekker, 270 Madison Ave., New York 10016, phone 212-696-9000. $49.75 (plus 20 per cent outside U.S. and Canada).

The following are available from Reston Publishing Co., 11480 Sunset Hills Rd., Reston, Va. 22090:

"Guidelines for Cancer Care: Symptom Management," by Joyce Yasko, $22.95 spiralbound, $28.95 casebound.

"Care of the Client Receiving External Radiation Therapy," Yasko, $14.95 and $18.95.

"Nutritional Aspects of Cancer Care," Marguerite Donoghue, Carolyn Nunnally, and Yasko, $14.95 and $18.95.

"Care for the Client Receiving Chemotherapy," Yasko and Barbara Brager, $23.95 and $28.95.

"Caring for the Patient with Breast Cancer," Catherine Pfeiffer and John Mulliken, $14.94 and $18.95.

"Coping with Childhood Cancer," David Adams and Eleanor Deveau, $12.95 and $19.95.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute unless otherwise noted. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs, citing the RFP number, to the individual named, the Blair building room number shown, National Cancer Institute, NIH, Bethesda, MD. 20205. Proposals may be hand delivered to the Blair building, 8300 Colesville Rd., Silver Spring, Md., but the U.S. Postal Service will not deliver there. RFP announcements from other agencies will include the complete mailing address at the end of each.

RFP NCI-CN-55435-46
Title: Isotretinoin-basal cell carcinoma prevention study

Deadline: Oct. 29

NCI's Div. of Cancer Prevention & Control intends to conduct a double blind randomized clinical trial to evaluate the efficacy of isotretinoin in the prevention of basal cell carcinoma. General requirements of participation included identification and accrual of evaluable patients (an average of 12 per month for 18 months), provision of medical screening, determination of patient eligibility and baseline medical evaluations, the storage, dispensing, and accountability of study medication, provision of specified treatments and followup evaluations in compliance with the protocol and administration of the study. Review and oversight of participation will be accomplished by the Study Coordinating Center located in the Cancer Prevention Studies Branch of DCPC, in Silver Spring, Md.

Contract Specialist: Deborah Smith-Castle
RCB Blair Bldg Rm 2A07
301-427-8745

RFP NCI-CN-55438-46
Title: Evaluation of chemopreventive agents by in vitro techniques

Deadline: Oct. 30

The Div. of Cancer Prevention & Control of NCI is interested in establishing master agreement contracts for evaluation of chemopreventive agents by in vitro techniques.

The objective of this study is to screen and evaluate the activity of chemopreventive agents in various in vitro assays of cell transformation. Agents with potential chemopreventive activity are identified by epidemiologic surveys, initial laboratory (experimental) findings, observations in the clinical setting, or structural homology with agents having known chemopreventive activity. A rigorous and systematic evaluation of these candidate agents is necessary before their efficacy can be examined in clinical trials for cancer prevention. In vitro screening and evaluation techniques measuring the ability of these chemopreventive agents to inhibit transformation provides a relatively rapid and efficient means of qualifying these agents for further evaluation for the prevention of cancer in humans.

Agents to be investigated by this project are potentially hazardous. The in vitro systems may involve the use of carcinogens, tumor cells or tumor viruses. Laboratory practices shall be employed which will keep any element of risk to personnel at an absolute minimum. Where indicated, tissue and compound handling must be performed in (at least) Class I laminar flow cabinets which must meet NIH specifications for work with these agents. The offeror shall comply with NCI safety standards for research involving chemical carcinogens (DHHS publication No. NIH 76-900 and the FDA Good Laboratory Practices Regulations).

It shall be required that the facilities have operating tissue culture/cell biology and chemistry laboratories which are suitable for using hazardous and/or carcinogenic materials as test materials.

It is estimated that up to 20 task orders per year will be issued pursuant to the award(s) of the master agreements.

The contractor must have or be able to obtain all the equipment necessary to accomplish the studies, including but not limited to, laminar flow hoods, CO2 incubators, equipment for sterility testing, isotope counters, spectrophotometer, hazardous chemical storage cabinets and refrigerators, equipment such as microscopes and miscellaneous laboratory equipment. The laboratory shall have or have access to appropriate terminal and computer facilities and equipment for data collection and storage.

Contract Specialist: Deborah Smith-Castle
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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.