THE CANCER LETTER

Vol. 11 No. 15
April 12, 1985

Subscription $150 year North America
$175 year elsewhere

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FACILITIES SURVEY: $1.5 BILLION WILL BE REQUIRED FROM 1986-1990, WITH NCI'S SHARE AT $678 MILLION

Cancer research facility needs for the next five years were estimated at $1.5 billion for all 197 institutions eligible for NCI construction grants, the final report of the survey on cancer research

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In Brief

OVER HALF OF OVARIAN CANCER PATIENTS STAGED INCORRECTLY; SENATE GETS FUNDING RESOLUTION

MORE THAN half of ovarian cancer patients are still being incorrectly staged if a survey of Washington D.C. area hospitals is typical of the nation as a whole. Larry McGowan, director of the Div. of Gynecologic Oncology at George Washington Univ., reported in the April issue of "Journal of the American College of Obstetrics and Gynecology" on a review of medical records of 291 ovarian cancer patients over a three year period. They included patients at community, teaching affiliated and university hospitals involving the practice patterns of general surgeons, general obstetrician/gynecologists and gynecologic oncologists. The study found significant differences among physicians and among hospitals, with the gynecologic oncologists and university hospitals more accurately evaluating patients. Appropriate examinations and procedures were not carried out in well over half of the patients surveyed, McGowan said. "Not every hospital, not every doctor is competent in treating cancer. The study shows that a general surgeon or general obstetrician/gynecologist operating on ovarian cancer patients can no longer be considered reasonable patient care".... **SENATE RESOLUTION** (S.J. Res. 89) introduced by Edward Kennedy directs the Administration to drop its multiple year funding scheme for some NIH grants. This is a companion resolution to the one introduced in the House by Henry Waxman. Kennedy said in an accompanying statement that the plan "is a clear violation of the spirit of the Congressional Budget & Impoundment Act and could be used to evade congressional intent for programs in many other areas of the budget... The Administration's apparent contempt for congressional intent is even more startling in view of the fact that the congressional mandate for an expanded NIH research effort was a key part of the compromise, supported by the Administration, that permitted last year's Republican budget resolution to pass the Senate... (It) ignores the widely recognized fact that science is on the frontier of critical breakthroughs in the diagnosis and treatment of diseases... The short term budget savings that may arise from reducing this critical research effort will be paid for many times over in the form of premature death and unnecessary illness for millions of Americans."

NCI'S SHARE OF MEETING FACILITIES NEEDS WOULD BE $135 MILLION A YEAR

(Continued from page 1)
facilities needs conducted for Armand Hammer and the American Cancer Society by CDP Associates Inc. contends. CDP estimated that construction/renovation grant applications for that entire amount would result in requests to NCI for a total of $678 million, or $135 million a year.

The survey was based on responses from 84 institutions. Since the analysis was made, another 57 responses have come in to CDP but were not included in the figures used by CDP. Those institutions, along with the nonresponders, were covered by the extrapolation, however.

A preliminary report released earlier by CDP was quoted as determining that $25 million a year would be needed from NCI over the next five years (**The Cancer Letter, March 8**). That figure applied only to the responding institutions.

"We consider the $1.3 billion as the true figure of cancer research facility needs," Carolyn Taylor, principal investigator for the survey, said. "That is actually what is needed now and will be needed by 1990." CDP presented data justifying the extrapolation. Responders included sufficient samples of small, medium and large institutions, amount of total NCI support, and laboratory, clinical and animal facilities.

Responses are still coming in, and Taylor expects that all will respond eventually except for a handful of institutions which ended their involvement in cancer research after the questionnaires went out or which have policies against seeking government construction support. Those asking for additional time cited competing demands on their staff during the November-December period. CDP pushed to complete the survey and report in time for the congressional appropriations hearings. Although only the preliminary report was available during the government's presentations to the House and Senate committees, the complete report has been submitted for the hearings records. They also could provide some discussion material for the public witnesses.

CDP would like to produce a complete analysis to include all those who eventually respond, but further support is needed. Hammer and ACS each put up $75,000 after NIH blocked federal funding of the survey on the grounds that the government was going to do an interagency survey of all research facility needs. NCI executives grumbled that a massive survey like that might be completed in time to consider in the 25th Century goals. Hammer, chairman of the President's Cancer Panel, suggested that cancer facilities be surveyed privately and offered to pay for half if ACS paid the other half.

CDP summarized its findings and conclusions resulting from the survey:

"In the solicitation letter (March 27, 1984) announcing the study, the sponsors stated that the purpose of the survey was to conduct an inventory of the quantity and quality of current cancer research facilities and to derive an estimate of future research facility needs. In addition, the sponsors requested 'an evaluation of the funding levels necessary to carry out the mission of the National Cancer Program.'

"The discussion that follows presents CDP Associates' findings as they relate to the original charge from the sponsors. An important consideration in preparing these conclusions—and for the reader in interpreting the findings—is the fact that, from the beginning, CDP undertook the design of the study and reporting of results from a conservative perspective. That is, the study was designed to elicit reasonable, uninflated responses from institutions; the analysis was performed to verify figures and to cross reference data so that responses could be assessed as real and accurate; and the interpretation was cautiously conducted to present only factual needs.

Quality of Space

"As research becomes more sophisticated, the characteristics of the space occupied changes. In many areas of basic science, advances in biotechnology are affecting traditional space planning—the high cost of sophisticated equipment requires sharing of equipment, not only among researchers but also among disciplines and even institutions. In clinical areas, the financial incentives for outpatient services affect the practice of clinical research, producing a dispersion of clinical research space. In animal research, there is a shift to the use of smaller animals, such as rodents. In administrative space, use of computers, word processors, and other intelligent machines are changing administrative and clerical support. All of these shifts in research methods reflect a change in the perceived conditions and quantity of space.

"At the end of 1984, the nation had over 10 million net square feet of cancer research space. By 1990, 16 million net square feet will be required to carry out cancer research programs, an increase of nearly 60 per cent.

"It is not possible from this survey to comment on whether or not the quantity of cancer research space is too much or too little in an absolute sense. However, by comparing the ratio of space to staff for existing cancer research facilities against established guidelines, there is crowding in basic research. All areas of cancer research—basic, clinical, animal and administrative—indicate a need for additional space by 1990, with clinical

research space needing a 70 per cent increase, and basic research needing 56 per cent more space.

"While the need for space is growing, the rate of new construction and renovation appears to be slowing. Only 17 per cent of the institutions in the survey reported any new construction, with three quarters of this activity in clinical research.

Quality of Space

"The age profile of cancer research space shows that three quarters of existing space has been built or renovated within the last 15 years. If we assume that the rate of construction and renovation was steady between 1970 and 1979, then half of all existing space is more than 10 years old. Experience indicates that research space that is 10 years old most likely needs renovation to modernize equipment or to meet safety and environmental standards.

"Institutions were asked to apply very precise definitions of condition to determine if their existing cancer research space was satisfactory (adequate for present needs unless it requires substantial repair or upgrading) or needed alteration, renovation or total replacement. Given these conservative guidelines, the institutions report that almost one fourth of all existing space needs substantial work.

"The findings about quantity of space, its age, and its condition indicate that the nation's cancer research space borders on inadequate.

"Researchers are conducting programs in space that will soon be unsatisfactory. If improvements are not made and additional space is not acquired, the National Cancer Program will be hindered by its inability to expand current research and to develop new programs to meet the Year 2000 goals.

Funding Levels

"To arrive at an estimate of the funding that would be needed to carry out the cancer research facility construction needs identified in this survey, two methods were employed. First, institutions were asked to estimate the amount of support they would request from funding sources (NCI, state and local government, private, the institution itself, and any other sources). Second, the estimated construction needs supplied by the institutions was applied against independent, national cost figures for cancer research facility construction.

"The amount supplied by the institutions themselves was $1.5 billion; the range using the independent figures was $1.3 billion to $2 billion.

"The primary source of construction funds for cancer reserch is the National Cancer Institute: 44 per cent of all requested funding would be to NCI. In other words, to meet 1990 space needs, institutions would request $135.6 million from NCI each year for the next five years. The remaining funds would be sought from other sources, which is consistent with NCI's construction guidelines that require 50/50 matching funds.

"The factors that will affect NCI's participation in cancer research facilities construction are many:

"*Competing priorities within the Institute—NCI's support of the construction program has declined significantly in recent years as other programs have assumed priority status.

"*The NCI peer review process—Not all institutions that apply for construction funds meet the criteria and pass the peer review process, nor are all funds requested actually awarded.

"*Current funding guidelines—The Research Facilities Branch could revise its guidelines concerning matching requirements, type of research eligible for facilities support, type of construction eligible for support, minimum level of research base, or other criteria.

"Therefore, it is difficult to recommend a single funding figure for NCI based on the variables in the institutions' estimates and the uncertainty of NCI's total budget.

"What can be concluded is the importance of federal support. NCI participation is a critical factor in securing private sector support. As one institution commented, 'approval of a construction grant application places a peer review seal of approval on the project which declares it to be a winner, making fund raising in the private sector easier.' The leverage factor of NCI funds seems to be the driving force in securing private support; without it, institutions will find it very difficult to meet their needs.

"The reality of current federal spending is that not all of the cancer research facility needs reflected in this study can be met—at once or over the next five years. At some point federal policymakers and NCI will need to examine the needs cited in this study and determine where the best expenditure of funds lies—in continued support of institutions of demonstrated scientific excellence, in developing programs in institutions with unusual potential in bring unsatisfactory space to an acceptable level, in constructing new space to meet identified needs, or elsewhere.

"Whatever priorities are decided upon, the longer the current needs go unmet, the greater and more costly they will become."

The $135 million estimate from NCI is light years away from the $1-2 million a year it has provided recently. Congress appropriated $6 million this year, but there is some question it will all go to construction.

Even the NCI bypass budget, which is supposed to

reflect the optimal amounts the Cancer Program can use, has had "only" $20-25 million each year. That figure was based on an NCI staff study conducted for the National Cancer Advisory Board about six years ago. That study was criticized by some as being biased, unscientific and naturally inclined to produce high estimates of needs.

Wait until they get a load of the new figures produced independently of NCI.

Actually, the staff study estimate was not that far removed from CDP's. It found that needs from 1980-85 would amount to about $500 million, with NCI's share at $20 million a year. Most of those needs have not been met, and CDP's estimate of $1.3 billion for 1986-1990 is almost identical to the previous five years, plus inflation.

CDP explained how it arrived at construction costs after securing from responding institutions their net square foot requirements:

"To validate construction funding needs, the costs were independently computed using current industry standard data by type of construction and geographic distribution and the experience of the architectural advisors to the project. . . The following costs assume construction and fixed laboratory case work. Land costs, professional services, furniture, and nonfixed equipment are excluded.

"*New construction of laboratory and office buildings, assuming a nominal mix of laboratories, lab support and office space—$120-175 gross square foot. A factor of two is used to convert total area to net assignable area: new construction costs $240-350 nsf.

"*Replacement figures are similar to new construction—$240-350 nsf.

"Renovation/remodeling of laboratory and office buildings, assuming the same space mix as above—$60-120 gross square foot. A factor of 1.8 is used to convert gsf to nsf. This ratio assumes that some of the nonassignable area may presently exist and not require renovation. Renovation—$110-220 nsf.

"*Completion of shell space is similar to renovation—$110-220 nsf.

The CDP report includes a history of cancer facility construction grants, starting in the halcyon year of 1972 with $44 million. It averaged $30 million in each of the next three years, dropped to $20 million for a couple of years, slid gradually to $10 million over three years, then plunged to $2 million in 1981 and $1-1.5 million through 1984.

"A major reason for the steady decline in construction funding is increased competition for limited research funds," the report says. "Such a competitive climate favors the sustained support of traditional research grants at the expense of other items. Another reason, reflected in the discussions at the December 1983 meeting of the President's Cancer Panel, is 'deep ideological divisions' within Congress, the research community, and the Office of Management & Budget. According to NCI Director Vincent DeVita, OMB's position is that federally assisted facility construction or renovation creates a demand for more scientists, who in turn apply for more grants, thereby creating added pressure on the federal budget.

"Proponents of a vigorous construction budget point to the government's matching fund arrangement as an effective use of the public dollar. Considering the matching contributions from other sources of income, the $219 million in construction grants that NCI has awarded since 1972 has resulted in a commitment of more than $500 million in facility support for NCI research activities. Because of the severe reductions in NCI construction funds, the private sector has been required to increase markedly its share of support for construction projects in recent years.

"Despite significant support from the private sector, numerous individuals continue to inform the National Cancer Advisory Board, the President's Cancer Panel, and other advisory bodies that NCI funded research is being conducted in overcrowded, outdated and/or unsafe facilities. According to NCI, the need for major federal funding is especially pressing for the construction and renovation of biohazard containment laboratories, specialized clinical research laboratories, and improved animal facilities. The immediate need presented in the National Cancer Program's current annual plan is for $20 million per year for the next five years. However, the document states that planned NCI construction funding 'further delays the upgrading of marginal and unsafe cancer facilities and will not achieve the desired levels of worker safety and biohazard containment.'"

The concerns about the snail-like pace of the interagency research facilities survey apparently were well founded. It has yet to get off the ground, blocked by OMB.

DELUGE OF SBIR CONTRACT PROPOSALS COULD SAVE $5 MILLION FOR CANCER

With only two weeks left last month before the April 1 deadline for Small Business Innovation Research contract proposals, NCI had received only one such proposal. It appeared then very likely that the Institute would have to surrender back to the U.S. Treasury nearly $5 million of the $9.2 million it had reserved for the SBIR program (with the balance going to SBIR grants).

Last week, after exhortations by NCI staff

members to the various boards of scientific counselors, after the Div. of Cancer Treatment had sent out letters to prospective applicants, after reports in **The Cancer Letter** on the situation, and after NIH brass had objected strenuously to some aspects of those efforts, the picture has completely changed.

"We were deluged," said DCT Deputy Director Gregory Curt. "It was the biggest run of contract proposals in the history of NIH." Curt is in charge of the SBIR Program for DCT.

No less than 246 SBIR contract proposals were received by NCI by April 1, 149 of them being assigned to DCT. The most received by any other NIH institute was seven. That seems to assure that NCI will be able to expend all of the reserved money left after funding the SBIR grants now undergoing review and which will be presented to the National Cancer Advisory Board in May.

All of the contract awards will be phase 1, for six months at $50,000. One hundred will be needed to use the approximate $5 million expected to be left after paying the grants. It is likely that at least 100 of the 246 will be approved. The priority scores will not really be a factor, since all of the approved must be paid as long as the money lasts.

NCI may not use all the $5 million for the contracts, however. The publicity and the push by NCI staff also stimulated a surge of grant applications for the April 15 deadline. NCI has the option of funding those grants in FY 1986, after the October NCAB meeting; or funding at least some of them with the remaining 1985 money after mail review by the NCAB.

"My feeling is that we'll take the best science in the contracts, and if there are good grants with high scores, we'll fund them with this year's money," Curt said. "That way we'll fund the best science quickly."

The contract proposals will not require approval by the NCAB and can be funded anytime after completion of review. Curt said the contracts from this round probably will be funded by August.

NCAB PONDERS PATIENT DISCRIMINATION, MINORITY RATES, SMOKELESS TOBACCO

Problems related to the major issues of discrimination against cancer patients, impact of cancer on minorities and the growing threat posed by smokeless tobacco were considered by the National Cancer Advisory Board's Committee on Cancer Control for the Year 2000 at its recent meeting.

Carolyn Gotay, program director for continuing care and rehabilitation in NCI's Div. of Cancer Prevention & Control, described barriers faced by cancer patients when they return to work. These include intrapersonal barriers such as physical limitations and changed self image; interpersonal barriers such as prejudices and dealing with the feelings of others; and organizational barriers such as failure to be hired, involuntary terminations, denial of employee benefits, and lack of career advancement.

Recent studies have shown that, depending on how discrimination is defined, the perceived discrimination in employment ranges from 15 per cent of those surveyed to 43 per cent. In one study, the discrimination was judged by medical experts to be unjustified from a medical point of view in 39 per cent of the patient claims. These findings raise several questions about the employment issue, Gotay said: How to define discrimination? How does it differ with the type of employment, such as blue collar vs. white collar? How do child cancer patients differ from adults already in the work force?

Committee members noted that barriers to adults will still be facing children in the future, including career preparation, work record, employer awareness (does the patient who survived cancer as a child inform a prospective employer of that fact?), insurance coverage, and the support system (does it still exist for the child patient now an adult entering the workforce?).

The committee agreed that policy implications which might be considered included enforced prosecution of discrimination; extension of the Rehabilitation Act to explicitly include cancer patients; making rehabilitation programs more responsive to needs of the cancer patients; and educating employers to understand the problems and potential of working cancer patients.

Gotay reviewed insurance implications such as denial of insurance, reduction in benefits, increases in premiums, extended waiting periods for coverage, and being locked into a job because the patient is afraid to move since he/she may lose insurance benefits.

Although most of the problems faced by cancer patients regarding insurance stem from individual coverage, some employers hesitate to hire them because of the impact on group insurance programs. Further investigation may be needed on such policy implications as who is to blame for elevated rates, the employer or insurance carrier; high risk insurance, with the patient given the opportunity to pay higher rates; appropriate mortality and morbidity data to guide insurance rates; disaster insurance to cover catastrophic situations.

Committee discussion covered these points:

*Insurance barriers for cancer patients may also be barriers for patients with other types of chronic diseases.

*These problems should be considered in relation

to individual site cancers as well as cancer in general.

*Women who take preventive measures against cancer may find that even when a lump is benign, the insurance companies are reluctant to insure them.

*Insurance companies may be as much as 30 years behind in their actuarial tables.

*More data are needed on the costs related to survival of cancer one year, three years, five years and beyond to get a more accurate picture of insurance risks.

*A request for applications issued by DCPC is attempting to examine the concrete needs of cancer patients, such as transportation. This RFA also may include examination of employment and insurance issues to some extent.

*NCI may have to work with other organizations such as the American Cancer Society in attempting to address these insurance and employment issues since they are not strictly within the Institute's purview.

*Since insurance regulation is primarily at the state level, it will be necessary to work with all the states on those issues.

Claudia Baquet reported on NCI's minority initiative, the goal of which is to eliminate the differences in cancer incidence, mortality and survival rates between minorities and whites by the Year 2000. The current emphasis is on blacks and hispanics, but since information is sparse on the latter, the discussion focues on blacks.

Site specific differentials between blacks and whites indicate an excess incidence for blacks in cancers of the lung (males), prostate, cervix, breast (under age 40), esophagus, pancreas, larynx and uterus, and in multiple myeloma. Blacks have a poorer survival rate for cancers of the bladder, breast, uterus, prostate and rectum. The five year survival rate for all cancer sites is 12 per cent less for blacks than whites.

Possible contributing factors to those differentials include risk factors such as tobacco, ethanol, diet and nutrition, and occupation; knowledge, attitude and practices; stage at diagnosis and treatment; socioeconomic factors such as demographic differences, quality of health care, access and use of health care; compliance; and other items such as immune function and histologic differences.

The committee discussed the following points:

*A study of poor whites by John Burke indicates that after adjusting for a number of factors, the socio-economic status (SES) of the studied population showed a difference in survival rates. The lower SES had lower survival.

*For multiple myeloma, blacks seem to have a better survival rate than whites, not a large difference but significant.

*Data collected for clinical trials under the Div. of Cancer Treatment's supervision should include a racial/ethnic identifier.

*Do blacks have other diseases which put them at greater risk for cancer? Perhaps this may influence the survival rates as well.

*Is there good evidence that there are specific problems which are minority based? Is it clear that there is a difference between blacks and whites based only on SES? Two cancer sites appear to be a greater problem for blacks than whites—multiple myeloma and prostate cancer.

*Studies by the Div. of Cancer Etiology will compare SES groups in order to get a better picture of the SES influence.

Joseph Cullen, DCPC deputy director, presented a report on smokeless tobacco. He said data available are mainly on the use of snuff but does include other types of smokeless tobacco.

Use of smokeless tobacco is increasing, expecially among children and adolescents, Cullen pointed out. Various studies show that smokeless tobacco causes cancer. Advertising is mostly aimed at young people by using sports figures and presenting a macho image. Certain reasons for the increase in its use is that smokeless tobacco is not taxed heavily; sales to minors are not prohibited; advertising and promotion are less restricted than for cigarettes; and there are no labeling requirements.

DCPC has issued an RFA to encourage large intervention research on smokeless tobacco.

The Federal Trade Commission has been petitioned by the Health Research Group, part of the Ralph Nader organization, to require health warnings on smokeless tobacco packaging and in advertising. FTC has asked the Surgeon General to set up a review panel to examine the issues. A number of voluntary and professional groups have taken positions against smokeless tobacco.

Committee discussion included the following points:

*Communication should be made to all professional sports associations, especially baseball, regarding the use of sports figures in promoting smokeless tobacco products.

*A motion was approved commending DCPC for its work on employment and insurance issues and for developing and maintaining minority programs.

*DCPC was urged to review possible areas of interaction with other governmental agencies regarding insurance and employment issues.

At Cullen's request, the committee approved a resolution on smokeless tobacco for presentation to the full NCAB. The NCAB later unanimously approved

the resolution after adding two points at the suggestion of member Victor Braren—that the NCAB supports ending federal government subsidies to tobacco growers, and that the NCAB supports maintaining the federal tax of 16 cents per package of cigarettes, scheduled to drop to eight cents this year.

"I think the NCAB on some occasions should jump into the fray," Braren said.

The resolution states, in addition to the points suggested by Braren:

"Whereas there is sufficient evidence for a cause and effect relationship between smokeless tobacco use and human cancer; and since the oral use of smokeless tobacco produces leukoplakia and damage to periodontal tissues, the National Cancer Advisory Board considers the use of smokeless tobacco to pose a serious and increasing health risk.

"Available information indicates there is an alarming increase in the promotion and use of these products, especially among children and adolescents. Additionally, smokeless tobacco contains sufficient nicotine to produce addiction. This fact poses the additional risk that users will begin to smoke cigarettes to satisfy that addiction.

"Finally, public awareness of the health risks associated with smokeless tobacco use appears to be very limited.

"In view of these facts and considerations, the NCAB strongly recommends and encourages the following actions:

"1. The Surgeon General of the United States is asked to:

"A. Respond affirmatively to the Federal Trade Commission's request for a comprehensive review of the existing evidence on health effects of smokeless tobacco use by a specially appointed task force.

"B. Support the petition before the FTC to require labeling of smokeless tobacco products.

"C. Make recommendations regarding product labeling and a ban on radio and television advertisements, as well as for other appropriate actions, to the President and to Congress.

"D. Instruct the specially appointed task force to examine taxation and other economic issues that affect the use of smokeless tobacco and make appropriate recommendations regarding the same.

"E. Advise the Office on Smoking & Health to include smokeless tobacco within its program purview and direct a portion of its public service announcement resources toward smokeless tobacco use, and include smokeless tobacco and its use in its data gathering activities.

"F. Initiate a national health education campaign to discourage the use of smokeless tobacco.

"G. Advise the appropriate health agencies of the need for further research and for public education.

"2. The NCAB supports the petition before the FTC to require labeling of smokeless tobacco products and encourages timely action.

"3. The NCAB supports the actions of those agencies and organizations that have taken public positions opposing the use of smokeless tobacco on the basis of associated health risks, and encourages other health agencies, school systems and sports associations to adopt similar positions.

"4. The NCAB commends the NCI Office of Cancer Communications for its efforts to inform the public and recommends that prevention and control efforts be intensified through the production and promotion of additional materials, including public service announcements and other media productions."

BRISTOL-MYERS ADDS FOX CHASE, UCLA TO ITS UNRESTRICTED GRANTS PROGRAM

Bristol-Myers Co. has added to more institutions to those receiving the company's unrestricted cancer research grants—Fox Chase Cancer Center and the UCLA Jonsson Comprehensive Cancer Center. The grants are the largest no strings attached commitment to cancer research ever made by a corporation, with each institution receiving $100,000 a year for five years.

This brings the company's program of unrestricted funding for cancer research to $8.34 million at 17 institutions in the U.S. and abroad.

"The institutions receiving the grants have made it clear to us that there is a pressing need for funding that allows flexibility to pursue new areas of cancer research and helps to support the work of promising young scientists," William Miller, Bristol-Myers executive vice president, said in announcing the new awards.

"We believe private enterprise must and should offer all the help it can and are proud of the program that turned our conviction into action. We intend to carry on with it. In the long run, it may prove to be the most important thing we do," Miller said.

Administering the grants will be John Durant, president of Fox Chase, and Richard Steckel, director of the Jonsson Cancer Center.

Both grants will be applied to projects designed to strengthen the bonds between basic and clinical research programs and to fund the work of younger scientists.

"This grant will play a significant role in a major effort to establish important new programs at Fox Chase," Durant said. "We want both to nurture basic research programs and to apply the insights and techniques of molecular biology to the solution of clinical problems."

The new programs include basic investigations in the areas of genetic control and regulation, the

biology of oncogenes, DNA repair and cellular architecture. Building on insights gained in basic biology, Fox Chase recently has inaugurated clinical research programs to develop magnetic resonance imaging as a diagnostic tool and to test monoclonal antibodies and biological response modifiers in cancer treatment.

Fox Chase is also developing a comprehensive pharmacology program, which is particularly aimed at using molecular techniques to understand drug resistance in human cancer.

"Eliminating the threat of cancer in our lifetime is a dream we all share," Steckel said. "Flexible support like this grant will ensure that the scientific community can move rapidly into new, exciting areas of research that will one day lead to the cure and ultimately the prevention of cancer."

When the Jonsson Center was founded 12 years ago, the emphasis was on patient research and collaborative laboratory work. The center now brings together interdisciplinary programs of cancer research, patient care, education and community cancer control.

Among the basic research programs are the study of critical subcellular events involved in causing cancer, understanding the roles of oncogenes and other agents, including viruses, in the growth and development of tumor cells, and cancer immunology.

Some clinical research areas that are being actively pursued include new forms of radiation and fast neutron therapy, hyperthermia, bone marrow transplantation, experimental programs in chemotherapy and immunotherapy, clinical trials of new treatments including biologicals and innovative programs for limb salvage and reconstruction in young cancer patients. There are also active research programs in cancer control and prevention, including smoking cessation, dietary and patient suggested studies.

Current recipients of the Bristol-Myers grants includes in addition to the new institutions, Fred Hutchinson Cancer Center, Georgetown Univ., Harvard/Dana Farber, MIT Center for Cancer Research, McArdle Laboratory, Memorial Sloan-Kettering, Ontario Cancer Institute, Institute for Cancer Research in Surrey, Istituto Nazionale in Milan and Japanse Foundation for Cancer Research.

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-55459-41
Title: Evaluation of PDQ
Deadline: Approximately June 15

NCI is soliciting proposals from organizations interested in providing a formative evaluation of PDQ. Specifically, this evaluation will monitor and analyze characteristics of PDQ, aspects of its use, and other factors which may influence the adoption and utilization of the system by physicians involved in the diagnosis and management of patients with cancer.

The concept from which this RFP was derived was approved by the Div. of Cancer Prevention & Control Board of Scientific Counselors last fall and was reported in The Cancer Letter Oct. 12, page 6.

Contract Specialist: Susan Hoffman
RCB Blair Bldg Rm 2A07
301-427-8745

RFP NCI-CN-55474-10
Title: Support service for the Diet, Nutrition & Cancer Program
Deadline: June 22

The Div. of Cancer Prevention & Control is soliciting proposals to provide support for the Diet, Nutrition & Cancer Program. Two contracts will be required to provide (1) general support for diet and nutrition activities; and (2) intervention clinical trials support.

The objective of task 1 is to provide technical and managerial support to DNCP, carrying out specific tasks. The contractor will be responsible for assisting the NCI staff with data and computer support related to nutrition and cancer, technical documents and conference support.

The primary objectives of task 2 are to provide analytical, data management, computer programming and coordination support for intervention trials in DNCP.

The concept from which this RFP was derived was approved by the DCPC Board of Scientific Counselors last spring and was reported in The Cancer Letter May 25, page 6.

Contract Specialist: Joan O'Brien
RCB Blair Bldg Rm 2A01
301-427-8745dg Rm 2A01er Letter

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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.