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NCI To Get $1.469 Billion In FY88 Appropriations Bill, An Increase Of $67 Million Over FY 1987

The 1988 fiscal year appropriations bill which came out of the compromise finally achieved by Congress and President Reagan last week includes $1.469 billion for NCI, an increase of $67 million over FY 1987 spending. That is about

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In Brief

ACCC Annual Meeting Scheduled March 16-19; Lazo To Head Pharmacology At Pittsburgh

FOURTEENTH meeting of the Assn. of Community Cancer Centers March 16-19 will have as the theme, "Clinical Indicators: Striving for Excellence and the Joint Commission Mandate." A breakfast forum with legislative aides for key congressional committees is planned. The meeting will be held at the JW Marriot Hotel in Washington DC. To submit papers, contact ACCC at 301/984-9496. . . . **JOHN LAZO**, formerly of Yale Univ. School of Medicine, has assumed the position of chairman of pharmacology at the Univ. of Pittsburgh School of Medicine. He has begun to restructure the department with an emphasis on cancer pharmacology and will be working closely with the Pittsburgh Cancer Institute, the university said. Lazo is in the process of recruiting assistant professors with an emphasis on cancer research. Candidates may send their CVs, research summaries and three references to Lazo, Univ. of Pittsburgh School of Medicine, 518 Scaife Hall, Pittsburgh, PA 15261. . . . **MOUNT SINAI** Medical Center has established the Irving J. Selikoff Occupational Health Clinical Center, which will offer a broad spectrum of services in the diagnosis and evaluation of work related disease. Selikoff, professor emeritus of community medicine and professor of medicine at the Mount Sinai School of Medicine, is particularly well known for his work on asbestos as a majar health hazard. The new center is headed by Philip Landrigan, director of the Div. of Environmental & Occupational Medicine. . . . **JAN HOWARD**, a member of the Health Promotion Sciences Branch in NCI's Div. of Cancer Prevention & Control, has moved to the National Institute on Alcohol Abuse & Alcoholism where she is chief of the Prevention Research Branch. Howard has been project officer for studies on black and white cancer patient survival differences and program director for studies to increase use of mammography and breast palpation in the early detection of breast cancer.

NCI Will Have About $20 Million More After Extra Money For AIDS, Centers

(Continued from page 1)

$60 million less than the totals approved originally by the House and Senate, representing NCI's contribution to deficit reduction.

NCI's figure, and that of NIH ($6.666 billion) were included in the appropriations bill which came out of the House and Senate Labor-HHS-Education Appropriations Subcommittees. That bill, in turn, was included in the massive "continuing resolution" which included nearly all of the federal governments appropriations for the fiscal year that started last Oct. 1.

Continuing resolutions are intended as stop gap funding measures to keep the government going until Congress turns out the regular appropriations bills. In recent years, after interim financing through short term continuing resolutions while Congress works on the regular bills, an overall continuing resolution has been crafted to include everything. That makes it more difficult for the President to veto, although he threatened to do so right up to the last minute this time, until Congress backed down on aid to the Contras and the radio-TV fairness doctrine.

NCI staff had not broken down the total amount into the various programs and mechanisms by press time; that should be available next week. Complicating this is whether certain directives in one committee report or another, such as the Senate's earmarking of $118 million and the House $103 million for cancer centers. Also, it was not immediately known if AIDS money was spared from the flat reduction imposed by the deficit cuts. NCI's total includes AIDS money, originally set at $93.9 million, up from $63 million.

House and Senate conferees had agreed on splitting the difference on NCI, although that did not amount to much. The $60 million reduction came from the overall four percent cut made in all federal discretionary spending (plus $5 billion in defense spending).

A quick analysis indicates that there will not be much money for new programs at NCI except for those funded by phasing out old ones. Of the $67 million increase, AIDS research will take about $30, the House-Senate agreement on centers if the earmarking stands another $10-15 million. That leaves about $20-25 million for other increases.

It appears that RO1 and PO1 grants may have to take reductions from their peer review approved levels again this year; they averaged about five percent in FY 1987. The Senate had demanded that centers be funded at close to their full recommended levels, but that may not have made it all the way through.

NCI had estimated that it would be able to pay 35 percent of approved competing grants, which would total 1,014, under the level in the original House bill. Those now figure to be somewhat less, depending on how NIH splits out the allocation of total NIH grants among the institutes. Probably, 30 to 35 percent of approved grants will be funded, with a priority score payline under 170.

There will no doubt be intense competition among NCI divisions and programs for the few remaining extra dollars.

Meanwhile, the White House Office of Management & Budget is putting the finishing touches on the 1989 fiscal year budget.

That budget will go to Congress later this month. There is little doubt it will include only a token increase for NCI over the new, 1988 level, except possibly for more AIDS spending. The NCI bypass budget request was $2 billion.

Not included in the NCI appropriations will be a grant of $8.5 million to Loma Linda Univ. in California for a proton beam therapy accelerator. That money will come out of the Dept. of Energy's budget, through the Fermi Laboratory, which is supported by DOE.

Unlike some other efforts to raid its budget, this grant was supported by DOE. The Loma Linda facility will be a demonstration center for proton beam cancer therapy, with Fermi assisting in the development. John Slater is chairman of the Dept. of Radiological Sciences at Loma Linda.

The award was written into the appropriations measure by Congressman Jerry Lewis (R-CA), an increasingly influential member of the House Republican leadership. Lewis, from San Bernardino, is a member of the Appropriations Committee and ranking minority member of its Legislative Branch Subcommittee.

NCI has supported a number of fast particle radiotherapy facilities through grants, contracts and cooperative agreements. The emphasis has been on neutron beams. Some radiation therapy oncologists believe that proton beams are even more promising for some cancer sites.

New Analyses Of Vanguard Group, Epidemiological Data Support WHT

A new and more detailed analysis of the Women's Health Trial Vanguard Group and another look at epidemiological data were presented to NCI advisors last month as solid evidence in support of carrying out the full scale, controversial study to its conclusion.

The Women's Health Trial Committee of the Div. of Cancer Prevention & Control Board of Scientific Counselors heard the presentations and then went into closed session, ostensibly to discuss the performance of institutions participating in the trial. Committee Chairman Philip Cole made it clear, however, that the committee's deliberations would be in closed session, and it's report to the BSC would not be made public until presented at the Board meeting Jan. 7.

The Women's Health Trial has generated tremendous controversy within NCI and DCPC as well as in the scientific community. Some of that stems from its cost--an estimated $90 million over 10 years, which many NCI staff members feel could be better spent on other projects.

The trial has also been attacked on the basis that dietary compliance is difficult if not impossible to verify; that dietary changes in the control group are inevitable and will confound the analysis; that the hypothesis, that breast cancer etiology is related to high dietary fat intake, has not been well enough established to justify the study; and that if the trial proves inconclusive, the public will be discouraged from reducing dietary fat.

A previous advisory group on the study, the Policy Advisory Committee, had followed the trial through its "Vanguard Group" phase, when 303 women were enrolled and randomized to control or intervention to assess the feasibility of the study. PAC recommended proceeding with the full study at the initial three clinical units, which proceeded to sign up another 1,200 participants. The speed with which they did so dispelled another doubt, that enrolling 32,500 subjects as called for in the protocol was not feasible.

Before recommending approval of the full scale trial, with 30 or more clinical units, PAC first analyzed the Vanguard data and recommended proceeding, then six weeks later met again and voted to stop it, except for followup of the 1,500 women already enrolled.

In a classic example of equivocation, the BSC rejected PAC's recommendation not to fully implement the study but also declined to approve going ahead with it. The issue was passed on to the National Cancer Advisory Board, which also ducked a final decision.

The DCPC Board did approve forming a new committee to again review the issues and come back this month with a recommendation.

Maureen Henderson, who is principal investigator for the clinical unit at Fred Hutchinson Cancer Research Center, presented the new analysis of the Vanguard Group at the WHT Committee meeting. Ross Prentice, PI for the study's statistical center at Hutchinson, presented a new analysis of epidemiological data, including the role of fat in the etiology of other cancers.

"Examination of the dietary data leads to the general assessment that the changes reported by the intervention group women are reasonable, and of a kind that describes dramatic reductions in fat intake," Henderson's report says. "Of particular note are the unchanged intake of nonfat calories and dramatic decrease in fat calories in the intervention group, compared with a drop in both fat and nonfat calories in the control group women."

Making the case for use of serum cholesterol measurement as a valid means of monitoring compliance, the report says, "There have been at least four other (in addition to the NCI/USDA feeding study) published reports of studies of dietary change and serum cholesterol in women. In all these studies, decreases in fat and/or alterations in fatty acid composition led to changes in serum cholesterol in the expected direction. . .

"Placed in the perspective of these feeding studies, and given the fact that the experience of the Vanguard intervention group women was self determined rather than controlled under experimental conditions, the drop in serum cholesterol from over the first year of followup was about as expected. . . Initial observations in the full scale trial compare well with the experience of the Vanguard women. Baseline deitary data demonstrates these two groups of women both consume similar diets. Preliminary followup data in the full scale trial indicated decreases in dietary fat, weight and serum cholesterol that correspond with the earlier data from the Vanguard women. . .

"The overall conclusion from the Women's Health Trial Vanguard study is that women who have been recruited to this study can

successfully lower mean dietary fat intake to below 25 percent of calories as fat, and can maintain this diet over the course of two years. The reasonable nature of the changes in dietary composition they report, and the agreement between expected and observed serum cholesterol levels at 12 and 24 months provide compelling evidence that the women's dietary records reflect their actual consumption. The agreement between the Vanguard and full scale trial data suggests the two year experience of the Vanguard women can be anticipated in the full scale trial. These data thus indicate that a 10 year clinical trial with a low fat diet intervention is a reasonable and feasible proposition."

Prentice's report summarized many of the epidemiological and migrant population studies which point to dietary fat as a major factor in breast cancer. It also cited the consistency of epidemiologic and experimental data. It all suggests, the report says, "that a dietary fat intervention trial among middle aged women may well lead to a significant reduction in breast cancer incidence over a 10 year study period."

Acknowledging that the projected cost is a major consideration, the Prentice report points to other studies showing the relationship of fat to other cancers and suggests that including those endpoints would help justify the cost.

"Colon cancer mortality rates in Japan increased by a factor of about 2.5 mover the time period 1960-1985, while fat intakes increased by about the same factor between 1955 and 1975, while breast cancer mortality increased by a factor of about 1.5," the report says."

The report notes that Saxon Graham, State Univ. of New York (Buffalo), found in studies in western New York that enhanced risk of cancers of the lung, larynx, mouth, colon, rectum and stomach was associated with high fat diets. The WHT can be expected to show an overall reduction of about 13 percent in total cancer incidence for intervention vs. control, at a five percent level of significance with 80 percent power, the report states.

"From these considerations, it is apparent that the WHT conducted under the approved protocol, in addition to providing a strong test of the dietary fat breast cancer risk hypothesis, will provide substanial additional information on the role of dietary fat in relation to other cancers."

DeVita: "Not Sure I Feel Same As In 1980" On Breast Cancer Task Force

Vincent DeVita now says that it may have been a mistake when, soon after he became director of NCI in 1980, he suggested that the Breast Cancer Task Force had been so successful in stimulating the field that "we should declare victory and get out" (that is, phase out the task force).

"After I said that, I had to meet with every women's group in the country," DeVita said at last month's hearing on the future of the Organ Sysems Program.

"It's fine to stimulate the field, but it would be nice to solve the disease before declaring victory," Mary Claire King, member of the Breast Cancer Working Group, commented.

DeVita agreed. "I'm not sure I feel the same as I did in 1980, that success was a reason to close groups. I'm not so sure now."

DeVita presented NCI's recommendations for changes in the Program:

1. Discontinue the external Organ Systems Coordinating Center and transfer those activities to NCI, to be administered by NCI staff. The working groups would remain intact.

2. Decentralize the Organ Systems Program grant portfolio, dispersing them among NCI's four program divisions.

3. Encourage the working groups to participate in cancer control activities. "This is a very important issue to us, and we would like to have you take this very seriously," DeVita said.

4. Develop criteria for initiating new working groups and terminating existing ones.

5. Hold all working group meetings in Bethesda to facilitate interaction with NCI program staff.

The last three are relatively noncontroversial. Most working group members agree that stimulation of cancer control research involving their respective disease sites is an appropriate activity for the groups. They also agree that sunrise-sunset criteria should exist, while reserving the right to disagree on what that criteria might be. And they have already started having their meetings in Bethesda instead of Buffalo, where the OSCC is headquartered, at Roswell Park Memorial Institute.

"Internalizing" the coordinating center, as NCI calls its proposal, and scattering the grants around the Institute are another

matter. Working group members and others who have been strong supporters of the Organ Systems Program are nearly unanimous in opposition to both suggestions (their arguments as presented at the hearing appeared in the Dec. 11 issue of **The Cancer Letter**).

DeVita no longer contends that abolishing the external center would save money. "I was hasty in commenting that we would save $1 million a year," he said at the hearing, which was being conducted by the National Cancer Advisory Board's Committee on Organ Systems Programs. The cooperative agreement that funds the center costs NCI a little less than $900,000 a year. "The bulk of the money would be required to do the same thing internally that is done in Buffalo. It was not intended to save money."

What then is the intention? Answering Committee member John Durant's question, "Is the groundswell for change coming from extramural sources or from inside?", DeVita said, "Primarily inside. However, it was prompted to some extent by the boards of scientific counselors. We decided to come up with ways to improve it."

DeVita said NCI staff members feel there are some logistical problems, some problems in coordination between the program and NCI staff, and some duplication in efforts. "There is some lack of coordination between the Organ Systems Program portfolio and the much larger portfolio of organ systems related grants throughout NCI."

DeVita said NCI supports $183 million a year in research that comes under the heading of organ systems but are located outside the Organ Systems Program; the program is supporting $19.5 million a year in grants. Of the $183 million, $155 million goes to grants, the rest to contracts.

Asked by Committee member Victor Braren for specific examples of duplication, DeVita cited RFAs on drug resistance and bladder cancer therapy.

Braren said that he is "constantly asking Andrew (Chiarodo, chief of the Organ Systems Section, which manages the OSP portfolio) how much tracking is done on site specific grants, and I always get positive answers."

"I'm very fond of Andrew," DeVita said. "But no one person can handle all those grants. The care and feeding of grantees is a delicate matter. We think they would be better handled by intramural persons involved in the specific fields. They help grantees with problems, answer questions, help them when they need more money."

On that particular issue, here is what William McGuire had to say (he is a former chairman of the Breast Cancer Task Force):

"Even though I spent three years at NCI as a clinical associate, and have been continuously funded for the past 18 years as a principal investigator of individual grants, contracts and program projects, the bureaucracy at NCI can at times be rather intimidating and frustrating," McGuire wrote in a statement to the committee. He was unable to attend the hearing.

"A specific example which actually happened will perhaps get the message across. Last year I was interested in finding out information on how to apply for a breast cancer conference grant. I started out by calling the Div. of Research Grants, the office of grant inquiries, who then referred me to the conference coordinator at NCI, who told me to call Grants Management in the Cancer Institute. I was then referred to Resource Support. Unfortunately, the phone did not answer, so I called Grants Processing in an attempt to find out this information. I was referred to Grants Administration, who then referred me back to the Div. of Research Grants. They in turn referred me to another conference coordinator where I left the message, but unfortunately they never returned my call. . . Finally, the light bulb went on in my head, and I called the NCI person in the Organ Systems Program in charge of my RO1 grant. I was immediately given the appropriate information and told to whom to send the application, etc. When I called it felt as though I was talking to a friendly office, someone who knew my name, and might even be willing to help.

"A more recent example involves the competing renewal of my RO1 grant this year. When it seemed like time to check on the status of the priority score of my grant, I was told that the executive secretary had left and had not yet been replaced, and all the grants from that study section had been farmed out to a number of assorted NCI personnel who then had the task of preparing all of the pink sheets. No one seemed to know where my grant had gone. This time the light bulb went on sooner and again I called the NCI person in the Organ Systems Program who immediately found my grant and was able to not only tell me the priority score but to indicate that I was eligible for a merit award.

"My purpose in relating the above examples is to indicate how important it is for the individual researcher outside NCI to have a friendly office to call when problems arise. The Breast Cancer Organ Systems Program provides that central point for me, where I know I can call to find out who is doing particular research in an area that I am not personally familiar with, or find out what NCI resources can be brought to bear on my research problems such as serum banks, etc. If I go to the library to find out this information, I only find out what was going on a year or two ago. If I need to know what is currently funded in a particular area, the Organ Systems Program can provide that information immediately."

DeVita agreed that the working groups are a bargain for NCI. "That source of advice is very cheap. We don't pay you guys very much, and I hope we can continue that. If the government had to pay for all the advice it gets, NIH would cost three times as much."

"One of the greatest advantages I've observed in the Organ Systems Program," Committee member Geza Jako said, "is that it is probably the best mechanism for bringing clinical and basic scientists together as a team. That is missing in some other programs."

Jako asked DeVita, "Is it your idea to bring everything into Washington, including the clinical cooperative groups?"

"The implication of your question is that I'm trying to centralize everything in Washington," DeVita answered. "That's not so. The cooperative groups already are centralized, in that Dr. (Robert) Wittes oversees them (as director of the Cancer Therapy Evaluation Program). The group headquarters are still outside and are not centralized."

DeVita said that he would like to have meetings of the working groups in Bethesda "except when there is a reason to have them elsewhere. We can't do anything about the fact that the money comes from Washington. The staff here translates your ideas into money. The boards of scientific counselors are made up of people from all around the country, not just those based in Washington."

Peter Greenwald, director of the Div. of Cancer Prevention & Control, led off his presentation on cancer control and organ systems with an appeal:

"One thing you can do to help the Organ Systems Program is to help us recruit an associate director for the Centers & Community Oncology Program." Jerome Yates, who held that position until last Oct. 1, is now associate director for clinical research of Roswell Park Memorial Institute, and Greenwald has been searching hard for someone to head up the program that includes cancer centers, construction (when and if that program is revived), the Community Clinical Oncology Program and Organ Systems Program.

"Why have cancer control related to the Organ Systems Program?" Greenwald asked, and then answered: "The whole purpose of organ systems, as I see it, is technology transfer. You look at each site and see which is the best pathway to translate research into reduction of mortality and incidence. I think that is a fundamental part of your charge.

"There is a tendency to think that if you make a discovery, it gets applied, that it doesn't take intensive attention to application. That is not usually the case."

Greenwald continued, "I would like to see the Large Bowel Cancer Working Group pay attention to what can be done in early detection. I'm not sure we've looked intensively enough at every region vs. what's going on in early detection."

Brian Kimes, director of the Extramural Research Program in the Div. of Cancer Biology & Diagnosis, presented the NCI argument for dispersing the OSP grant portfolio among the program divisions.
The advantages, he said, include:

1. Research along the same general thrust would be managed by program staff, division directors and boards of scientific counselors with the most appropriate scientific training and perspective.

2. The programs would receive more expert representation within in NCI.

3. Unsuccessful grant applicants would receive more expert advice and assistance in resubmitting applications.

4. Reporting requirements of NCI would become more efficient and accurate because oversight of similar scientific approaches would be consolidated into one place.

5. There would be greater incentive for NCI program managers to participate in organ systems research.

6. The funding exception process of NCI would be used more effectively and consistently to promote organ systems objectives.

7. Activities of other institutes within NIH would be evaluated more effectively relative to NCI organ systems objectives.

NTP Board Approves Concept Of New Contracts For Mutagenesis Assays

The National Toxicology Program Board of Scientific Counselors gave concept approval to a contract supported project for development of mutagenesis assays using transgenic mice at the Board's December meeting in Research Triangle Park, NC.

The concept will be developed as a request for proposals (RFP) by National Institute of environmental Health Sciences staff. Announcement of the availability of the RFP will be published in **The Cancer Letter**. Two, and possibly more, contracts will be awarded.

The concept statement follows:

Development of mutagenesis assays using transgenic mice. Two or more contracts are anticipated, each five year awards.

The objective is to develop one or more in vivo mutagenesis assay systems to detect and quantitate gene mutations at a precisely defined target sequence in somatic, and possibly, germ, cells of mice exposed to a test chemical. Such assays will provide a means to detect and analyze organ and tissue specific mutagenesis and study associations with chemical disposition, toxicity and carcinogenicity. This will provide an opportunity to investigate the relationship between a chemical's mutagenic activity in vivo and its carcinogenicity. Ultimately, such systems may provide an in vivo short term assay with predictive value for carcinogenicity. Such assays may also be amenable to use in measuring in vivo germ cell mutagenesis.

For several years, in vitro mutagenesis assays have been used in an effort to identify potential carcinogens. The use of these tests is predicated on the somatic mutation theory of carcinogenesis and early observations of a high correlation coefficient between mutagensis test results in vitro and carcinogenesis test results in vivo. In more recent comparisons, however, the agreement between in vitro test results and carcinogenesis was no better than 60 percent for four different in vitro assays. This raises a number of questions about the extent to which one can expect in vitro assays to predict the outcome of a process as complex as carcinogenesis. The ability to analyze gene mutation in the whole animal, in the tissues and organs at risk for developing chemically induced neoplasms, would greatly increase understanding of the relevance of the mutagenicity of individual chemicals to the mechanisms of carcinogenesis. For example, carcinogens have been identified that are not mutagenic in vitro, but apparently induce novel H-ras mutations at the site of tumorigenesis.

In recent years convenient mutagenesis assay systems have been developed in which precisely defined target genes are carried on a shuttle vector that can be mutated in cultured mammalian cells and transferred to bacterial cells for scoring and detailed analysis, including DNA sequencing. Often, a bacterial gene such as 1ac1 or supF are used as forward mutation targets. The prospect of extending this to a while animal somatic cell mutagenesis assay stems from important recent advances in molecular biology, including the development of transgenic mice. In this technique recombinant DNA derived genes are introduced into the mouse germ line where they are inherited in Mendelian fashion. The transcriptional activity of the transgene is determined in part by the choice of promoter/enhancer sequences included in the construct and in part by the genomic milieu determined by the site of integration, which is random. Transgenic mice have been used successfully in experiments to study control of gene expression, gene therapy experiments, and as a means to study subthreshold neoplastic states induced by certain activated oncogenes. This technique allows one to engineer genetically a mutation target to suit a specific need and have that target available in ever cell of the test animal. Having the transgene integrated into the host chromosome in an authentic chromatin structure is much more appropriate as a mutation target than the episomal shuttle vector of many current in vitro mammalian cell mutagenesis systems.

There are several programmatic goals that can be met through the use of an in vivo mutagenesis assay system. While each of these may have its own set of requirements, several of the goals may be addressable using the same assay system. The goals of the project and the general form of the respective assay systesm are:

1. Rapid screen for chemical mutagens. Such an assay may involve a forward mutation assay in order to identify a board range of mutational events. A selectable marker could be used as a target to increase the efficiency of recovery or a histochemical, immunohistochemical or morphological assay might be scored in intact lesions.

2. Detailed molelcular analysis of induced mutations. The target should be amenable to convenient scoring in a bacterial host and should be relatively small to make detailed analysis, including sequencing, easy. Target gene and analysis strategies similar to the shuttle vector systems are likely to be appropriate.

3. Germ cell mutation assay. Somatic cell mutagenesis assays may be altered slightly to target germinal tissue with a specific promoter sequence or by separating germ cells from the somatic cells in the gonads after chemical treatment.

4. Assay for mutations induced in specific tissues. To derive maximum information on the relation between tissue specific mutagenesis and carcinogenesis, especially in regard to the goal of predicting potential tumorigenicity, the B6C3F1 mouse should be used. Constructs carrying oncogenes may be useful for detecting and characterizing activation of oncogenes by mutagenic or nonmutagenic carcinogens. Because of technical difficulties in constructing transgenic mice, it may be advisable to develop appropriate assays in other strains of mice before incorporating them into the B6C3F1 hybrid.

With those goals in mind, proposals will be solicited to construct suitable recombinant DNA clones containing mutation targets, develop and characterize transgenic strains carrying the mutation target and perform a limited analysis with known mutagens and carcinogens to evaluate the utility of the system.

RFPs Available

Requests for proposals 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 20892. 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-CO-74109-10

Title: Cancer Information Dissemination and Analysis Center

Deadline: Approximately Feb. 25

NCI is seeking organizations with scientific and technical capabilities to assume the operation of a CIDAC for the International Cancer Research Data Bank Branch. One contract will be awarded in the subject area of cancer diagnosis and therapy. Major activities include:

1. Assuming regular monthly production of over 21 series of "Cancergrams," monthly current awareness bulletins containing 30-100 abstracts of recently published cancer research. For each "Cancergram" topic, a CIDAC staff member (subject specialist) screens monthly abstracts retrieved from computerized searching of an ICRDB database and prepares a package of some 50-100 abstracts for review by a consultant (identified by the CIDAC) who is currently involved in research pertinent to the "Cancergram" topic area and who need not be an employee of the organization.

2. Producing annually five different "Oncology Overviews," retrospective compilations of 150-500 selected abstracts on high interest cancer research topics. The publications are developed by the subject specialists in consultation with researchers (identified by the CIDAC) who are recognized as experts in the subject area of each "Oncology overview."

3. Responding rapidly to request for information in specific cancer research subject areas. Subject specialists must be able to interact knowledgeably and professionally with scientists requesting information, and formulate and use computer search strategies for retrieving the needed information from ICRDB databases.

The organization must have previous experience in analysis and processing of cancer research information or similar biomedical information as well as involvement with cancer research (preferably inhouse or via a teaming arrangement). The project director must have a PhD or MD and once or more research publications in a biomedical subject directly relevant to cancer research areas covered by the CIDAC. Consultants/outside reviewers must have a PhD or MD degree and one or more research publications in a biomedical subject area relevant to the specific "Cancergram" which they are to review.

Collectively, they must cover all "Cancergram" topics within the CIDAC's purview and should be located in sufficiently close proximity to the CIDAC office or provision must be made for overnight courier delivery to provide rapid turn around in their review of "Cancergram" materials.

Contracting Officer: Joan O'Brien
RCB Blair Bldg Rm 314
301/427-8877

RFP NCI-CM-87241-23

Title: Radiotherapy treatment planning tools

Deadline: Approximately May 27

The Radiation Research Program of NCI's Div. of Cancer Treatment is seeking organizations to be a collaborative working group (CWG) to develop new computer based support systems that provide the radiotherapist and medical physicist in the field of radiation therapy treatment planning with new tools that will help to make three dimensional treatment planning a routine activity. A principal goal of the research is to produce clinically useful software tools that are transportable. It is expected that the research will make use of expert system technology, but is not limited to that type of software development.

The CWG, which will be made up of the research team from each of the successful contracting organizations, will be comprised of a multidisciplinary group of physicists, computer scientists and physicians. The CWG will meet at regular intervals to direct the research efforts of the group. The first year will be concerned with an assessment of existing software tools that can:

1. Automatically and rapidly extract anatomical features from multiple computer tomography images.
2. Transfer tumor outlines from other imaging modalities to CT scans.
3. Assist the physician in the development of treatment volume outlines based on tumor contours.
4. Make first guess choices for an optimized treatment plan.
5. Present alternative plans for radiotherapists using the full capabilities of three dimensional treatment planning systems.
6. Provide the means for rapidly and interactively comparing digitally produced images of a patient in a treatment position and a CT based reconstruction for treatment position verification.

The development of these software tools will require a consensus among the CWG as to software documentation, data formats, hardware compatibility, and a general methodology for adapting the ideas and/or existing software to existing three dimensional radiotherapy treatment planning systems. In the remaining years of these contracts, the individual organizations will test and evaluate the software in routine clinical settings and present the results to the CWG.

Contract Specialist: Nancy Carrick
RCB Blair Bldg Rm 228
301/427-8737

RFP NIH-ES-88-05

Title: Case control study of indoor radon levels, cigarette smoking exposure and cancer

Deadline: Feb. 22

The Div. of Biometry & Risk Assessment of the National Institute of Environmental Health Sciences is planning to initiate a case control study of the relationship between both active and passive smoking and alpha radiation from indoor radon pollution with respect to the onset of cancer of the lung and other potential target sites that have been identified in ecologic and industrial studies. Offerors will be required to define an appropriate population for study and design a case control study to assess the interaction between alpha radiation from indoor radon pollution and cigarette smoke in the onset of lung cancer and cancer at other specified sites.

The estimated period of performance is 30 months. This 30 month period may involve approximately 1.3 person years of professional effort, approximately 5.8 person years of technical effort and approximately 1.2 person years of clerical effort. All responsible sources may submit a proposal. A maximum of two awards is planned.

To receive a copy of the RFP, send two self addressed mailing labels to Velvet Torain, Contract Specialist, NIEHS, PO Box 12874, 79 T.W. Alexander Dr., 4401 Bldg., Research Triangle Park, NC 27709.

The Cancer Letter _Editor Jerry D. Boyd Associate Editor Patricia Williams

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