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

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YARBRO LEAVES CENTERS PROGRAM WITH PITCH FOR MORE MONEY FOR CORE GRANTS, COMMUNITY OUTREACH, CONTROL

John Yarbro, who as director of NCI's cancer centers program has been a key figure in the development of centers for the last three years, has left NCI to develop a center of his own, at the Univ. of Missouri. In his final presentation to the National Cancer Advisory Board, Yarbro appealed for more money for core grants and community outreach and cancer control programs in the comprehensive centers, and named the five new comprehensive centers, in addition to the three already in existence which he said "have developed an organizational stability, scientific level of expertise, and rate of growth which guarantees, at least to me, that these institutions will be with us for many years to come as successful multidisciplinary cancer programs."

The five were the Sidney Farber center in Boston, Fred Hutchinson center in Seattle, Wisconsin center in Madison, Greater Miami center in

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In Brief

LAST BIT OF NONSENSE BY WEINBERGER; MAGNUSON MAY WRITE NCI POSITIONS INTO HEW MONEY BILL

CASPAR WEINBERGER is going out fighting. In his last congressional appearance before departing as HEW secretary, Weinberger asked Sen. Magnuson's HEW Appropriations Subcommittee to hold the department's fiscal 1976 money to the President's budget level. It was utter nonsense to make such a request; the House has already passed the bill, giving NCI, for example, $725 million, compared with the President's request of $605 million. But Weinberger hoped to pressure Magnuson into refraining from adding more money to the bill. . . . **MAGNUSON'S SUBCOMMITTEE** may go further than the House did in the matter of the NCI personnel freeze and write into the bill a specific number of positions available to the institute. The House bill made no reference to NCI positions, but the committee report included strong language intended to pressure the Office of Management & Budget into making more positions available. . . . **PAYBACK REQUIREMENT** for all medical school graduates across the board "strikes me as a pretty good idea," commented Benno Schmidt, chairman of the President's Cancer Panel and a member of the President's Biomedical Research Panel. He was referring to a provision in pending health manpower legislation which would require all med grads to work a certain length of time in medically underserved areas, teaching or research, or to pay back to the government his share of federal funds that supported his medical education. Schmidt doesn't like the payback feature now in effect for research fellowships and training grants because he feels recipients are more than paying their way as they go, working on research projects. "They're earning every cent they get, and that's some of the best money we spend," Schmidt said.

FIVE COMPREHENSIVE CENTERS NAMED AS THOSE MOST LIKELY TO SUCCEED

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Florida, and the Mayo Foundation center in Minnesota. (The three existing centers are M.D. Anderson, Roswell Park and Sloan-Kettering.)

Yarbro told the Board that the centers program is facing three major problems:

• "Core grants contain insufficient seed or developmental funds to permit the kind of flexible growth required in a comprehensive cancer center. Such funds should be at least 20% or $200,000 in the annual core budget. Only in this way will it be possible to develop those components essential to the comprehensive program mandated by Congress.

• "The community outreach and cancer control programs in our comprehensive cancer centers are not being funded at a level sufficient to accomplish the goals set by the National Cancer Act. New ideas and initiatives are required to solve this problem. If we do not reach the public and the profession, and only the comprehensive centers have the manpower and expertise to do this in a meaningful way, then we cannot blame Congress if it concludes that we have failed to carry out the mandate given to us." Yarbro said outreach programs should be funded at the $500,000 to $1 million level, rather than $100,000–$300,000 they have been getting.

• "As the rate of growth of our budget slows, as it most certainly will, we must resist the temptation to spread the dollars too thin to be effective. Rather, we must concentrate our resources in those institutions which are really doing the job we set out to do. If this means that the weaker or less committed programs go under, then so be it."

Yarbro later told ***The Cancer Letter*** the five centers he named "are the most stable for the future. Three of them have survived recent changes of leadership, and this is always a critical test. Some of our centers are one-man operations. They exist only because of the leadership of a single, dynamic individual and are not established as viable academic entities. In such cases the loss of the leader can result in the collapse of the center into fragmented multidepartmental uncoordinated programs."

In his presentation to the Board, Yarbro accepted the blame for what he said were two "notable failures" in the program. He told ***The Cancer Letter***, "I think I failed to sell the review committees on the concept of adequate developmental funds in core grants and I have failed to devise a means to adequately fund the outreach or cancer control efforts in comprehensive cancer centers. Also, I think I may not have taken a strong enough hard line in enforcing the NCAB characteristics on administrative structure in comprehensive centers. Of the 17 centers, I am completely satisfied with the administrative structure in only nine."

Why were the other eight identified as comprehensive?

"High scientific merit, strong programmatic relevance, and potential for future development. It is hard to disapprove a center meeting these characteristics even when the administrative structure is weak. But I think we must be more stringent in the future.

"A lot of people don't think administrative structure is important, if the research is good," Yarbro said. "And it's not as far as an individual research project in the lab is concerned. But there are two major reasons why NCAB emphasized administrative structure. First, there are a lot of programs and activities essential to a comprehensive center that universities have often neglected–preventive medicine and outreach for example. Second, if a center is to outlive the leader who created it there must be some sort of formal structure which will survive a transition in leadership. Of course, effective coordination between multiple and sometimes competing programs in a center requires some formal mechanism for establishing priorities."

Yarbro said that cooperation between the cancer control and cancer centers staffs "has been very good," although problems in coordinating the programs do exist.

"You have to remember that cancer control went from zero to $50 million in three years as a brand new program never tried before by NCI. This was also a period of rapid growth in cancer centers. Coordination is difficult in such circumstances. Cancer control made a special effort to develop a grant program for comprehensive centers, and the information program recently funded would have been impossible without the efforts of the cancer control staff. A significant fraction of the cancer control budget is going to comprehensive centers on a competitive basis, and that is as it should be if merit is to be preserved as a criterion. Now, this may have been a problem with multiple small contract proposals requiring a great deal of investigator time for a small dollar return, but recently control has moved in the direction of the larger saturation programs and this is encouraging."

Yarbro listed as accomplishments of the centers program he is most satisfied with:

★ "We have funded a lot of very good research by teams of investigators who either were not working together before or were not even working on the cancer problem. This list is too long to go into, but it reads like a Who's Who of American science.

★ "We have helped to start a number of comprehensive centers which will be around for many years to come–some as departments of oncology, others as institutes.

★ "We have planted the seed of oncology as a legitimate academic discipline which will encourage developing centers to establish academic programs with strong survival potential. What I am talking about here is oncology as a multidisciplinary and

integral component of the academic establishment. In the long run, after the National Cancer Act is history, this achievement, if indeed we have been successful, will work in the interests of good cancer research and good cancer care.

★ "We have developed programs which reach from the laboratory bench all the way into the community. This is important because only if the public is served will support continue to be forthcoming from all sources to the academic establishment.

★ "We have established the concept of a network of comprehensive centers each serving as a hub for tertiary care, research and education in a region. This was what the original Regional Medical Program was all about, but the opposition to this concept is deep rooted and powerful."

Yarbro described as lesser accomplishments but still significant, the conversion from umbrella grants to core grants which he said has greatly improved the review process; the continued availability of construction funds to provide space and a physical focal point for center activities; the cancer control grants for comprehensive centers; the establishment of information offices in comprehensive centers to serve the public and profession; the standardized patient data base which will allow comparison of data between centers and may serve as a standard for all tumor registries in the future; the development of a formal review process for comprehensive centers by NCAB; and the concept of re-review of centers already certified as comprehensive to ensure maintenance of standards.

As for the future, Yarbro observed that the NCI budget will have to plateau at some point. "When this happens, if we spread the money too thin, if we fail to concentrate our resources on the centers which are committed and productive, then we will run the risk of losing all we have gained. The centers must solidify their relationships with the local division of the American Cancer Society. ACS was here before the Cancer Act and it will be here after the act is history. Some ACS chapters, quite frankly, have felt threatened by the community programs of cancer centers. The reverse is also true. There must be a unified effort towards the common goal. The public, after all, is the boss, and unless we all serve the public, differences of opinion between members of the cancer community will matter very little in the end.

"Another thing, the most exciting area for clinical research today is in adjuvant chemotherapy of early cancer. These early cases are treated in the community hospitals and that's where they should be treated. But this means that for the first time the academic establishment must go out into the community to obtain the essential case material for its research. Considering the way the community physician has been treated in the past, the academic physician will have to go out hat in hand, but that's all right, too. However, if this effort is successful in the development of a collaborating network of community physicians and hospitals around each comprehensive cancer center, we will be in a position to conduct cooperative clinical trials on a scale and of a quality undreamed of in the days when you had to get on a jet and fly two hours to discuss collaboration with another chemotherapist skilled in the use of potent anticancer drugs. And we will be able to do this locally between physicians who can go to the meetings by automobile, not by airplane."

Was Yarbro suggesting that the Clinical Cooperative Groups be abolished?

"Not at all. There is still a need for cooperative groups of investigators at the national level for those protocols which are sufficiently sophisticated to require that each participant be a proven investigator and for those rare tumors requiring a national data pool."

USC CONTRACT TOPS LIST OF CONTRACT AWARDS THAT BEAT THE FY 75 DEADLINE

USC's contract award for research on the etiology and epidemiology of human cancer, worth $2,464,500, topped the week's announcements as the beat-the-FY 75-deadline awards continued to pour out of NCI.

Contract officers worked right up to midnight, June 30, to get the institute's 1975 money obligated, and they say they did. Any money not spent or obligated by that deadline would revert to the U.S. Treasury.

Other awards over $1 million announced during the week included one for $1,320,924 to Cordova Chemical Co., a division of Aerojet-General, for preparation of bulk chemicals and drugs; and another to St. Louis Univ. School of Medicine for $1,080,000 for studies on the mechanism of oncogenesis.

Other awards:

Title: Coordinated research and development program in cancer chemotherapy
Contractor: Arthur D. Little, $65,019.

Title: Isolation of antitumor agents from natural products
Contractor: Arizona State Univ., $111,255.

Title: Design and synthesis of fraudulent sugars related to daunosamine
Contractor: Ohio State Univ., $209,731.

Title: Phase I studies of new anticancer agents
Contractor: Children's Hospital of Los Angeles, $145,200.

Title: Phase I studies of new anticancer agents
Contractors: M.D. Anderson, $238,102; and Univ. of Kansas Medical Center, $151,085.

Title: Immunochemotherapy research on the action of anticancer agents on immune responses in vivo and in vitro
Contractor: Roswell Park, $86,380.

Title: Studies of the immunodepressant activity of anticancer drugs
Contractor: Univ. of Miami, $74,209.

Title: Development of biological systems for evaluation of antitumor agents
Contractor: Univ. of Texas (Dallas), $59,957.

Title: Immunochemotherapy research
Contractor: State Univ. of New York, $134,301.

Title: High quality microbiological studies in support of cancer chemotherapy clinical research
Contractor: Hazleton Laboratories, $410,263.

Title: Isolation of human xenotropic viruses
Contractor: Univ. of California (San Francisco), $133,751.

Title: Technical support to achieve compliance with safety standards for research on oncogenic viruses
Contractor: Dow Chemical Co., $219,980.

Title: Continue studies on the regulation of gene expression in mouse mammary cancer
Contractor: Baylor College of Medicine, $133,000.

Title: Immunological and biochemical studies of mammalian viral oncology
Contractor: Meloy Laboratories, $37,747.

Title: Support for a US and USSR joint symposium on nucleic acids
Contractor: National Academy of Sciences, $34,750.

Title: Epidemiological studies in the etiology of cancer in veterans
Contractor: National Academy of Sciences, $102,000.

Title: Conduct a study on human tumor virology
Contractor: Univ. of California (Berkeley), $100,000.

Title: Study of latent virus infection and transmission and on significance of C-type particles
Contractor: Southwest Foundation, $52,090.

Title: Investigate immunological measurements as a guide to the behavior and viral etiology of breast cancer
Contractor: New York Medical College, $140,925.

Title: Studies on the role of oncogenic viruses in the causation of cancer
Contractor: California State Dept. of Health, $145,000.

Title: Maintain San Francisco Bay Area resource for cancer epidemiology
Contractor: California State Dept. of Health, $497,441.

Title: Maintain a virus processing and production facility
Contractor: Electro-nucleonics Laboratories, $310,317.

Title: Collection of human milk specimens
Contractor: Michigan Cancer Foundation, $100,000.

Title: Development of laboratory animal virus diagnostic reagents
Contractor: Microbiological Associates, $46,235.

Title: Conduct studies of type C RNA tumor viruses
Contractor: Microbiological Associates, $98,440.

Title: Inter and intraspecies identification of cancer cells in vitro
Contractor: Child Research Center of Michigan, $135,000.

Title: Demonstration of tumor specific transplantation antigens in tumors
Contractor: Fred Hutchinson Cancer Research Center, $57,980.

Title: Conduct of a cancer end results project
Contractor: Connecticut State Dept. of Health, $399,738.

Title: Relationship between transformation by RNA tumor viruses and the differentation of target cell
Contractor: Univ. of California (Berkeley), $41,288.

Title: Comparative studies on the structure and replication of murine and avian tumor viruses
Contractor: Univ. of California (Berkeley), $163,000.

Title: Development and characterization of cell substrates for the study of cancer viruses
Contractor: Univ. of California (Berkeley), $465,000.

Title: Studies on the role of humoral and cellular immunity in determining the outcome of herpes virus saimiri
Contractor: Tulane Univ., $82,500.

Title: Cellular immunity studies on simplex associated antigens
Contractor: Emory Univ., $172,624.

Title: Develop group testing procedures for screening carcinogens
Contractor: Univ. of California (San Francisco), $74,752.

Title: Study of epidemiology and etiology of breast cancer
Contractor: Harvard College, $40,332.

Title: Maintenance of a low temperature repository and establish cell lines from human tumors
Contractor: Flow Laboratories, $270,000.

Title: Conduct research on Hodgkins disease and other malignant tumors
Contractor: Stanford Univ., $399,445.

Title: Continue studies of oncogenic herpesviruses in primates
Contractor: Harvard College, $94,467.

Title: Maintain immunodeficiency cancer registry
Contractor: Univ. of Minnesota, $25,975.

Title: Characterization and study of transport system from normal and neoplastic cells
Contractor: Univ. of Rochester, $228,295.

Title: Synthesis of derivatives of carcinogenic polycyclic hydrocarbons
Contractor: OMNI Research Inc., San Gorman, Puerto Rico, $23,470.

Title: Temperature sensitive mutants in in vitro carcinogenesis
Contractor: Univ. of Illinois, $165,000.

Title: Determining the effect of chronic immunosuppression on physical and chemical carcinogenesis
Contractor: Univ. of Utah, $199,597.

Title: Development of detailed methods and protocols for carcinogenesis screening using cell culture assays, Task V
Contractor: Univ. of North Carolina, $283,522.

Title: Studies of modulating factors in respiratory carcinogenesis
Contractor: IIT Research Institute, $393,856.

Title: The significance of mutagenesis in carcinogenesis
Contractor: Wistar Institute, $105,340.

Title: Microbiological synthesis of carcinogenic polycyclic hydrocarbons
Contractor: Univ. of Texas (Austin), $44,540.

Title: Isolation, propagation and storage of mutant vertebrate cells
Contractor: New York Univ., $220,040.

Title: Studies of mammalian cell transport systems
Contractor: Hebrew Univ., Jerusalem, $83,000.

Title: Study of oncogenesis and other late effects of cancer therapy
Contractor: Memorial Hospital, New York, $99,985.

Title: Synthesis of polycyclic hydrocarbon derivatives
Contractor: Midwest Research Institute, Kansas City, Mo., $636327.

Title: Responses of peripheral blood monocytes from patients with neoplastic disease to chemotactic factors
Contractor: Duke Univ., $109,312.

Title: Development of detailed methods and protocols for carcinogenesis screening using cell culture assays – Task V
Contractor: American Health Foundation, $344,210, and Stanford Research Institute, $412,245.

SOLE SOURCE NEGOTIATIONS

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

Title: Molecular studies of human and animal cancer with emphasis on breast carcinoma
Contractor: Meloy Laboratories

Title: Studies on the role of oncogenic viruses in the causation of cancer in man
Contractor: California State Dept. of Health

Title: Studies of latent virus infection and transmission, and studies on the significance of C-type particles
Contractor: Southwest Foundation for Research & Education

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer or Contract Specialist for copies of the RFP. Some listings will show the phone number of the Contract Specialist, who will respond to questions about the RFP. Contract Sections for the Cause & Prevention and Biology & Diagnosis Divisions are located at: NCI, Landow Bldg. NIH, Bethesda, Md. 20014; for the Treatment and Control Divisions at NCI, Blair Bldg., 8300 Colesville Rd., Silver Spring, Md. 20910. All requests for copies of RFPs should cite the RFP number. The deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NCI-CM-67026

Title: *Therapy of patients with ovarian carcinoma*
Deadline: *Sept. 8*

NCI will make available to interested institutions an RFP to conduct clinical trials of intensive, multidisciplinary therapy of patients with ovarian carcinoma and to determine the efficacy of a number of therapeutic approaches. A limited number of contracts is envisioned.

It is contemplated that the scope of each contract will require treatment of at least 40 evaluable patients per year each of whom has (a) a microscopically confirmed diagnosis of serous, mucinous, endometrioid or undifferentiated ovarian carcinoma and (2) whose primary neoplasm has been fully staged by FIGO classification.

These 40 cases shall include a minimum of 20 cases with Stage I or II disease. Treatment will be supplied by a full and available competent staff consisting of surgeons, radiotherapists, medical oncologists/chemotherapists and pathologist. Each of these staff members shall be free and willing to cooperate fully with one another as well as their colleagues and other participating institutions.

Therapy shall be administered in accordance with developed protocol contained in the RFP or individual offerors may choose to write specific protocols independently by conforming to the general outline of the RFP. The RFP will be issued on or about July 21. Proposals are due on Sept. 8. Requests for copies of the solicitation will be honored if received 20 days after issuance of the RFP on July 21. Requests received after this period will be filled on a first-come, first-served basis until the supply is exhausted.

Contract Specialist: Joseph Kerner
Cancer Treatment
301-427-7463

ATLAS SHOWING COUNTY-BY-COUNTY CANCER RATES AVAILABLE FROM NCI

NCI has published an *Atlas of Cancer Mortality for U.S. Counties: 1950-1969* showing geographic variation in cancer death rates across the U.S. for 35 anatomic sites of cancer.

NCI scientists believe the atlas provides clues to occupational and other environmental factors that contribute to cancer causation. The atlas can be used to identify communities or areas of the U.S. where additional studies may pinpoint these factors.

Authors of the atlas are Thomas Mason, Frank McKay, Robert Hoover, William Blot, and Joseph Fraumeni of NCI's Epidemiology Branch.

The atlas contains maps of 16 common cancer sites on a county-by-county basis. The other 19 sites, for which fewer deaths occurred during 1950-1969, are mapped by state economic area (SEA). The SEA is a unit defined by the U.S. Bureau of the Census as a single county or group of counties with similar economic and social characteristics. SEAs usually are intermediate in size between counties and states.

The maps are based on average annual cancer death rates (deaths per 100,000 population) computed after tabulation of cancer deaths in the U.S. during 1950-1969. This information, obtained from data provided by the National Center for Health Statistics, is based on death certificates. The rates were computed separately for whites and nonwhites and for males and females. The data were adjusted to correspond to the distribution by age of the U.S. population in 1960. The resulting 729-page volume of cancer death rates was published by NCI in 1974.

The new maps of cancer mortality show geographic patterns separately for males and females and describe cancer only in whites. The smaller numbers of nonwhites in the U.S. make modification of the mapping technique necessary to assure reliable results. Another mapping study now under way will examine in detail geographic differences in cancer death rates for nonwhites.

The maps are followed by summary tables for each cancer site, listing a percentile ranking of both mortality rates and numbers of deaths. Using these tables, together with the volume of county-by-county tabulations, a reader may assess the relative impact of a particular cancer for any county. Other tables in the atlas list death rates for each cancer site for consecutive five-year age groups.

NCI suggests the chief value of the maps will be to stimulate scientists and other health professionals to conduct studies of intriguing cancer patterns in their own locales. Similar geographic patterns for both males and females for a particular cancer suggest that common environmental factors may contribute to causation; markedly different patterns for the sexes suggest effects of occupational factors.

For some sites such as melanoma, NCI found predictable geographic patterns. Melanoma deaths occurred predominantly in the southern U.S. In areas of the Southwest bordering Mexico, rates were somewhat lower. Scientists have known for many years that sunlight is a major cause of skin cancer, and that darker-skinned persons are less susceptible.

Cancers of the colon and rectum, believed to be related to diet, were found in both sexes at above average rates in the Northeast (New Jersey, southern New York, Connecticut, Rhode Island, Massachusetts) and in urban areas along the Great Lakes (Buffalo, Cleveland, Detroit, Chicago, Milwaukee). Low rates were found in the southern and central parts of the U.S. Surprisingly, breast cancer showed a similar pattern, suggesting that this disease may have an environmental factor in common with cancers of the large intestine.

High rates in the Northeast for cancers of the esophagus, larynx, mouth and throat, and bladder were limited to males, suggesting the influence of occupational factors. In a correlation study, NCI identified high rates of cancers of the lung, liver and bladder in counties with significant employment in the chemical industry. Additional studies are needed to clarify any occupational risks.

It is nearly certain, NCI believes, that industrial exposures have produced the striking geographic concentrations of bladder cancer deaths in males in the East.

NCI also found above-average lung cancer death rates in counties where a significant percentage of the work force is engaged in smelting and refining of copper, lead and zinc ores. Arsenic, a known human cancer-producing agent, is an airborne byproduct of the smelting operation for these ores. Above-average rates were found for females as well as males in these counties, suggesting spread of an occupational risk to the surrounding community.

The authors of the mapping study caution that the maps should not be used alone to ascribe cancer mortality to hazards in specific areas.

Epidemiologists throughout the U.S. will be receiving copies of the atlas from NCI in coming weeks. The information offices of the 17 comprehensive cancer centers also have received copies.

Single copies are available free of charge from NCI, and larger orders will be available from the Government Printing Office at a later date. Write to Office of Cancer Communications, NCI, Bethesda, Md. 20014.

The Cancer Newsletter—*Editor* JERRY D. BOYD

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