THE CANCER NEWSLETTER

11800 Sunrise Valley Drive. Reston. Virginia 22091 Phone 703—471-9695

Volume 1 No. 8

March 29, 1974

Subscription Rate: $100 Per Year

Reviewers Duck Problem Of Naming Four More Comprehensive Centers, Leave It Up To Rauscher To Pick From List Of 11

Eleven institutions have been "identified" by the Cancer Research Center Review Committee as eligible for designation (or recognition or whatever) as comprehensive centers. The list was approved by the National Cancer Advisory Board last week and presented to NCI Director Rauscher, who will select from four to six of them to receive the much-sought comprehensive tag.

The review committee, which is reluctant to admit it is competent to determine whether or not a center meets the requirements of a comprehensive center, passed the buck to Rauscher in filling out the congressionally-mandated list of 15. The National Cancer Act specified that 15 comprehensive centers would be established by June 30, 1974.

That deadline probably will not be met. Rauscher has already identified nine comprehensive centers, but told the NCAB that he probably would select only four, leaving room for two more to be named as the

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IN BRIEF

Rogers Indicates He May Let Training Grant Bill Die

PAUL ROGERS, chairman of the House Health Subcommittee, has been sitting on the training grant revival bill since it came back to the House from the Senate. Rogers originally sponsored the bill last year when the Administration ended the popular, successful but sometimes abused NIH training grant and fellowship programs. The House passed it by an overwhelming margin, as did the Senate, after Sen. Kennedy added on provisions dealing with protection of human subjects in research. Rogers refused to go to conference with Kennedy, arguing that the bill's character was changed and that he needed to conduct further hearings on Kennedy's add-ons. The hearings were held, but Rogers hasn't moved to get the revised bill to the floor for a vote, or to a conference with the Senate. He says now that other pending health legislation has priority over training grants, and with Congress moving toward an adjournment by October, there may not be time to work the bill back into the schedule. . . .**MEANWHILE, NCI** is proceeding to award the "Weinberger" fellowships, the $10,000 individual post doctoral awards. The institute will obligate $19 million for the program this year, which matches the peak amount in 1972 under the old program. . . .**THE** American Tobacco Institute asked for time on the agenda of the National Cancer Advisory Board "to describe the overall thrust" of the tobacco industry's claimed $6 million health research program. The Board refused the request; one member said "it would not be appropriate to provide them with a forum." The industry representative was advised that he could make his presentation to the Tobacco Working Group, an interagency body that oversees all govern-

Big Population Groups Still Don't Have Comprehensive Centers; Some Won't Get Any

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remaining centers strive to meet the comprehensive requirements.

Not the least of considerations in determining where the comprehensive centers will go is the geographic factor. The 12 identified so far (three that existed prior to enactment of the cancer act and the nine named by Rauscher) leave big population gaps. Intention of Congress was to make benefits of cancer advances available to greater numbers through the comprehensive centers, and ultimately a comprehensive center will have to be located in every large population group.

The three existing comprehensive centers are Sloan-Kettering, New York City; Roswell Park, Buffalo; and M.D. Anderson, Houston.

The nine newly-identified centers are the University of Wisconsin, Madison; Fred Hutchinson Cancer Center, Seattle; Children's Cancer Research Foundation, Boston; University of Alabama, Birmingham; Johns Hopkins, Baltimore; Duke University, Durham; USC, Los Angeles; University of Miami, Fla.; and Mayo Clinic, Rochester.

The biggest population group left without a comprehensive center is the Ohio Valley—Ohio, West Virginia, Western Pennsylvania, and Eastern Kentucky—with 18 million persons. The Midwest—Illinois, Indiana, Western Kentucky—is second with 17.9 million. Others in order are:

Central States—Nebraska, Kansas, Iowa, Missouri—with 11.2 million; Delaware Valley—Eastern Pennsylvania, Southern New Jersey—with 9.5 million; Michigan, with 8.8 million; Northern California and Northern Nevada, with 7.7 million; and the Mountain States—Wyoming, Colorado, Utah, New Mexico, Arizona—with 6.3 million.

John Yarbro, director of the NCI centers program, insists that no implication should be drawn from the population groupings as to the location of future comprehensive centers. Some of the larger areas with more than one outstanding candidate may get two or more comprehensive centers before others develop in the unserved areas. Centers in the smaller population groups (such as those in San Francisco and Denver) could be recognized before those in the top of the population bracket, in Ohio and Illinois.

Congress is certain to remove the limit of 15 new comprehensive centers, leaving the NCI free to identify others as they are developed. NCI has estimated that 30 comprehensive centers properly distributed around the country will reach the maximum number of persons before diminishing returns makes any more impractical. However, Harold Rusch, director of the Wisconsin center and NCAB member, believes there are not enough qualified persons now to staff 20 centers. "If we stick with our criteria, we will find it difficult to staff 20 to 25 centers, to say nothing of 30," Rusch told the Board.

Publication: *The Cancer Centers Program*, HEW Publication No. (NIH) 74-610. Write to Office of Cancer Communictions, NCI, Bethesda, Md. 20014

NCI Grants Going To More Young Investigators As Percentage Of Funded Awards Holds At 50%

Young investigators are getting a better than even break in the distribution of NCI research grants, according to figures presented to the National Cancer Advisory Board by John T. Kalberer Jr. of the Division of Research Resources and Centers.

Seventy per cent of new, traditional grants in 1972 were awarded to investigators 45-years-old and under. The 31-35 age group received 23%, 36-40, 21%, and 41-45, 19%.

"This means that a substantial amount of work is being performed by people who don't have to attend so many meetings or spend a lot of time on the phone," Kalberer said. "They have more time to be creative."

The trend toward younger investigators picked up remarkably from 1967 to 1972. Only 8% of those with NCI grants in 1967 were under 35; five years later, it was 30%, including 7% from 25-30.

Kalberer's presentation included figures showing trends in grant awards for NCI, the Heart & Lung Institute and NIH as a whole over the last three years. The charts included a breakdown on percentage of grant applications approved, and the percentage of approved grants that were funded.

In 1971, NCI awarded 427 grants, peaked in 1972 with 658, and dropped in 1973 to 607. NHLI awarded 455, 488, and 413, while NIH (excluding NCI and NHLI) went from 2,069 to 2,882 and then down to 1,942.

NCI approved 56.8% of the grant applications in 1973. This was down from the 68.6% approved in 1970. However, the institute reviewed only 521 applications in 1970 and 1,436 in 1973, as investigators developed proposals with more relevance to the mushrooming cancer program.

Getting grant applications approved is one thing; getting them funded quite another. Only 49% of those approved were funded in 1973 by NCI, compared with 61% the previous year. NIH as a whole funded 64% of its approved grants in 1973.

Funding of approved grants will be at about 55% for NCI in 1974.

NCI has wrestled with the problem of what to do about top quality proposals that go unfunded, as well as those occasions when study sections disapprove applications considered by some, at least, to be worthwhile. From time to time, a disapproved or un-

funded applicant will tell his story to a Congressman or Senator, requiring NCI to stand firm against political pressures.

Division Director J. Palmer Saunders explained the system through which NCI attempts to catch those worthy proposals that "fall through the cracks." Program directors review all applications considered by study sections, looking for such things as bias on the part of study section members against an individual or program, or when they may not be sufficiently informed on a subject. Sometimes the amount of the award is too low, and requests for increases will be asked. Study sections may be asked to re-review disapproved applications, or they may be referred to other study sections for another review.

Publication: *Report On Grant-Supported Research Programs,* March 19, 1974. Write to Division of Cancer Research Resources & Centers, NCI, Bethesda, Md. 20014

RFP'S 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-43747

Title: *Preparation and purification of viral components*

Deadline: *April 23, 1974*

Human tumor cells, including leukemic blood cells, have been determined to contain two biochemical markers which are closely related to those found in RNA tumor viruses from lower mammalian species. First, an RNA-dependent DNA polymerase enzyme has been isolated from human leukemic cells with biochemical properties and immunologic specificity virtually identical to reverse transcriptases from some mammalian RNA tumor viruses. Second, cytoplasmic RNA molecules have been isolated from leukemic cells with the physicochemical properties of RNA tumor virus genomic 70S RNA.

This includes considerable homology of the primary nucleotide sequence to the RNA from some mammalian RNA tumor viruses. Further, it has been demonstrated that virus-like RNA and RNA-dependent DNA polymerase can be recovered as a complex, which resists dissociation, from the cytoplasm of leukemic cells, implying the existence of some particular form. Thus, although virus particles have not been definitely identified in human leukemics or lymphomas by electron microscopy or by the transmission of "viral information" to secondary cells, the presence of the above biochemical markers strongly suggest that "virus" is, in fact, present in, an as yet, morphologically non-identifiable or "biologically" defective form. If these biochemical markers prove to be unique for tumor cells, they may well provide effective targets for tumor treatment or prophylazis, and, with very high probability, could provide sensitive diagnostic indicators.

Very recently, the laboratory of tumor cell biology has acquired evidence that both the RNA dependent DNA polymerase and the virus-like RNA in human leukemic cells are considerably more related to the analogous molecules from the two available primate RNA tumor viruses, simian sarcoma virus-1 and gibbon ape lymphosaracoma virus, than to viruses, than to viruses from lower mammalian species. It, therefore, becomes imperative to obtain adequate quantities of these primate viruses.

The primary objective of this contract will be to provide large quantities of the primate viruses. These viruses to be provided are as follows: simian sarcoma virus, and gibbon ape lymphosarcoma virus, and Mason-Pfizer virus. This virus must be certified to be biochemically and biologically active and generally should be provided after double isopycnic survose density banding. The viruses must be propogated in primate cells, preferably human cells, in order to avoid confusion with possible contamination by other RNA tumor viruses, which may be endogenous contaminants of cells from lower mammalian species. The virus-producing cell lines must be free of mycoplasma and other possible microbiological contaminants.

The primate viruses, particularly gibbon ape lymphosarcom virus, are very fastidious in their growth properties. Therefore, constant monitoring of virus production levels are required and, hopefully, further optimization of growth conditions will be realized. Also, the requirements for the isolation of viral components with maximum biochemical activity have not been completely determined and require continued evaluation.by the contractor.

Contract Specialist: Daniel J. Longen
301-427-7460
Cancer Treatment

RFP NCI-CM-43757

Title: *Drug distribution and inventory system*

Deadline: *April 29, 1974*

NCI ships drugs used in the chemotherapy program to registered investigators throughout the world. The

Drug Distribution and Inventory System was developed to record all data pertaining to the shipment of these drugs, to maintain a drug inventory, and to produce monthly and quarterly reports from this information. It is actually made up of two interrelated data processing systems: an on-line inventory, and a drug shipment and cost reporting system. These systems are run on-site, using the NIH computer facilities (IBM System/360 and System 370 operating under OS/HASP). All programs are written in PL/1, Conversational Programming System (CPS), or Inquiry and Reporting System (IRS).

The on-line iventory system was written for and is run by the Cancer Therapy Evaluation Branch. It maintains an inventory of all formulated drugs used in the chemotherapy program, providing instantaneous information on NSC number (Drug Identification Number), lot number, dosage form, quantity on hand, manufacturer, and expiration date. The user may search the file by NSC number, NSC/lot number, or NSC/dose formulation; ship drugs and automatically balance the quantity in inventory; add new lots to the file; or correct information already on file. Shipping information is batch-printed onto Clinical Drug Request Forms, and transferred to the drug shipment and cost reporting system files. Three reports are routinely generated: a clinical drug inventory list, a report of lots nearing expiration, and a report of losts running low in inventory and needing to be re-ordered.

The drug shipment and cost reporting system records all information concerning the shipment of drugs to registered investigators, and produces routine and special reports from this data. Between 160 and 180 drug shipments are processed each day. The system maintains four major files using on-line and batch processing programs. Shipment information entered via the inventory system is expanded, using another on-line data collection system, to create the drug shipment file for the current fiscal year. The investigator address and group affiliation files contain all pertinent data for the more than 5500 investigators receiving drugs from the program. The lost summary file contains one record for each of the 1000 formulated lots shipped by the cancer treatment program. It has cost data as well as such things as dose formulation and manufacturer. Various monthly and quarterly reports are produced on a regular basis. In addition, programs are written to generate new reports on special request. Some examples of these are: mailing labels for all investigators who have received a drug which is causing a toxic reaction, a report of all shipments to a particular investigator, a report of past usage of a drug in order to predict future trends.

The Contractor will perform the following:

Extract drug shipment data from clinical drug requests supplied by the project officer; extract drug identification data from pharmaceutical control record supplied by the project officer; prepare and manually verify all drug data so that it will match the already developed input formats and parameters for subsequent computer processing; be responsible for computer input of all drug shipment data, and drug cost data; maintain all files, that is card-image shipment file, master shipment file, lot summary file, supplier name file, drug name file, group name file, investigator address file, and investigator group affiliation file; provide programming services needed for the maintenance of the on-line inventory system and the drug shipment and cost reporting system. This includes keeping current with DCRT's operating system, and maintaining the efficiency of the two systems as the cancer treatment program expands.

Contract Specialist: Thomas J. Whelan
Cancer Treatment

RFP NCI-CN-45090-04

Title: *Develop and evaluate continuing education programs relative to cancer*

Deadline: *May 6, 1974*

The Cancer Control Program is soliciting proposals from medical and dental societies at the state and local level to develop and evaluate continuing education programs relative to cancer. The purpose of this program is to improve the continuing education of practicing physicians and dentists relative to cancer through the media of their professional societies. Offerors must represent a population base of no less than one million persons.

Component medical and dental societies within the same area may submit a conjoint offer, if desired.

Contracting Officer: Hugh E. Mahanes Jr.
Cancer Control

CONTRACT AWARDS

Title: Biomedical engineering research services
Contractor: Arthur D. Little, Inc., Cambridge, Mass., $298,000

Title: Study of the preparation and purification of actinomycin analogs via directed biosynthesis
Contractor: Georgetown University, $43,954

Title: Breast cancer detection demonstration project
Contractor: University of Michigan, $133,333

Title: Cytology demonstration project for a Southwestern American Indian population
Contractor: University of New Mexico, $248,958

The Cancer Newsletter—*Editor* JERRY D. BOYD

Published weekly by National Information Service Inc., 11800 Sunrise Valley Drive, Reston, Va. 22091, Jerry D. Boyd, President.