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CCOP APPLICATIONS TOTAL 162; THREE COMMITTEES, HEADED BY AHMANN, LOEB, SPURR WILL REVIEW THEM

A total of 162 applications for the Community Clinical Oncology Program has been received by NCI, with the possibility that a few more are still making their way through the NIH Div. of Research Grants. The deadline for receipt of applications was Nov. 9.

The number of CCOP applicants competing for the $10 million set

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In Brief

WILLIS TAYLOR NEW ACS PRESIDENT, GERALD MURPHY PRESIDENT ELECT, ROBERT GADBERRY BOARD CHAIRMAN

WILLIS TAYLOR, head of the Radiation Oncology Section at the Virginia Mason Medical Center and clinical professor in the Dept. of Radiation Oncology at the Univ. of Washington Medical School, is the new president of the American Cancer Society, taking over from **ROBERT HUTTER**. The new president elect is **GERALD MURPHY**, director of Roswell Park Memorial Institute. **ROBERT GADBERRY**, Wichita public relations consultant and former banker, is the new chairman of the ACS Board of Directors, succeeding **ALLAN JONAS**. . . . **ACS NATIONAL** awards were presented to **JOSEPH BURCHENAL**, Memorial Sloan-Kettering; **HOWARD SKIPPER**, Southern Research Institute; and **DAVID HARTMAN**, host of ABC's Good Morning America. ACS Distinguished Service Awards went to **WILLIAM CAHAN**, thoracic surgeon at Memorial Sloan-Kettering, and **JOSEPHINE CRAYTOR**, Rochester, N.Y., a pioneer in oncology nursing. . . . **GERALD MURPHY** was honored by the Univ. of Brussels during an EORTC meeting on clinical trials in genitourinary tumors, receiving a silver medal "for outstanding contributions to the treatment of prostatic cancer as chairman of the National Prostatic Cancer Project and for work achieved with colleagues at Roswell Park". . . . **UCLA CLINICAL** neutron therapy facility groundbreaking is scheduled for Dec. 8 at the adjacent Wadsworth Veterans Administration Medical Center. NCI Director Vincent DeVita will be the keynote speaker. The facility is being developed under a contract with NCI, along with M.D. Anderson Hospital and the Univ. of Washington. UCLA also has made a major contribution to the project through its own funds and those of private supporters. Those involved in the program include **JAMES SMATHERS**, director of the Medical Radiation Physics Div.; **RODNEY WITHERS**, director of the Experimental Radiation Therapy Div.; **GEORGE MILLER**, project engineer; and **ROBERT PARKER**, chairman of the Dept. of Radiation Oncology. . . . **JAY GREENBERG**, specialist in the treatment of blood disorders, has been appointed chief of the Div. of Pediatric Hematology/Oncology at the Vincent Lombardi Cancer Center of Georgetown Univ. Greenberg had been at Children's Hospital of Philadelphia.

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CCOP APPLICATIONS "VERY WELL PUT TOGETHER;" REVIEW STARTS JANUARY

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aside to fund the program thus is somewhat less than had been anticipated on the basis of letters of intent (232 of which had been submitted). NCI had estimated that 200 applications would come in. Earlier estimates, influenced by huge turnouts at workshops held around the country for community hospital representatives, led some to believe the number of applications might exceed 400.

NCI Director Vincent DeVita had suggested in his first discussions on the program that 200 might be the optimal number required to achieve thorough geographic coverage of the U.S. He used that as a round number, with funding estimated at $50,000 each on the average, in determining the total money to be set aside at $10 million.

Although the number of CCOP applications is less, the program could turn out to be as extensive as anticipated, in numbers of patients placed on research protocols and in geographic spread. A majority of the applications probably consists of groups of clinics and hospitals organized as consortia, and the average number of members in a consortia probably is more than expected. The ultimate example is the application from Oregon, in which one CCOP with more than 20 member institutions would cover the entire state.

Executives of NCI's Div. of Extramural Activities, earlier fearing the review would be a nightmare with hundreds of applications from people completely inexperienced in writing grants, are breathing a little easier now.

"I'm not worried about the review," said Dorothy MacFarlane, who has organized three ad hoc review committees for CCOP. The application format devised by the program staff in the Div. of Resources, Centers & Community Activities worked well in helping applicants organize their presentations, MacFarlane said. After looking through 95 or 96 of the applications, MacFarlane said they "seemed to be very well put together."

The three ad hoc committees consist predominantly of community physicians, with some members experienced in data management and cancer control. Each committee will have 20 members (there are still five yet to be confirmed).

The three chairmen are outstanding investigators and leaders in clinical oncology—David Ahmann, Mayo Clinic; Virgil Loeb, Washington Univ.; and Charles Spurr, Bowman Gray.

MacFarlane recruited out of retirement three experienced executive secretaries of NIH study sections to serve in that capacity for the committees. They are John Munn, Russell Hilmoe, and Ann Burke.

Each committee will review about 55 grants, which MacFarlane said "is a good workload." None will be site visited.

The committees will meet the last week in January and the first two weeks in February. Final action on the awards will be made at the National Cancer Advisory Board's May meeting.

Robert Frelick, CCOP program director, has come up with the answer to one of the questions asked frequently by prospective applicants which had to be referred to NIH legal counsel.

When a group of physicians, or a clinic, not affiliated with an institution, becomes a CCOP, how will it meet the requirement for an institutional review board?

There are three answers: 1. Establish your own IRB. 2. Use the IRB of any institution, even if it is not affiliated with the CCOP, provided the arrangement is agreed upon in writing. 3. Use the IRB of the CCOP's research base (or one of the research bases if there is more than one), provided a mutual agreement is worked out.

NCAB COMMITTEE DRAFTS DEFINITION OF QUANTITATIVE RISK ASSESSMENT

The National Cancer Advisory Board's Committee on Environmental Carcinogenesis has completed one of the tasks assigned it as part of its charge to develop a policy position on the adequacy, limitations, and use of quantitative risk assessment methodologies—the drafting of a definition of "quantitative risk assessment."

The committee met this week and agreed on this definition:

"The assessment of both hazard and exposure information for purposes of estimating the likelihood that hazards associated with the substance will be realized in exposed individuals or populations. This assessment involves two steps:

"(1) HAZARD IDENTIFICATION/CHARACTERIZATION (QUALITATIVE RISK ASSESSMENT)

"The characterization of toxicity to humans as determined from observations on human populations and/or from experimental systems;

"(2) QUANTITATIVE RISK ESTIMATION

"The process by which the risk of disease or death in a population exposed to a toxic agent is related quantitatively to the pattern of exposure, including factors such as the intensity and duration of exposure. The quantitative process includes an estimation of uncertainties."

The committee, chaired by Sheldon Samuels, agreed on an outline of the policy statement to be submitted to the full NCAB. The outline will be circulated among all committee members for possible revisions, and may incorporate further changes to accommodate suggestions submitted by interested organizations.

Samuels said a draft of the policy statement will be submitted to the Board at the January meeting. The committee will then meet to write in suggestions from the Board, and will present a completed draft to the Board in May.

The definition was the first of the nine points in the outline. The others:

2. Applications. Establish that quantitative risk assessment (QRA) is a valuable tool for more than regulatory purposes—it also can be useful for surveillance, social assessment, the legislative process, compensation, product liability, and other special applications.

3. Institutional arrangements—who should do risk assessment? Regulatory agencies in general believe that they should do QRA themselves, and that the scientific agencies should merely produce information. Samuels disagrees.

"The process of quantitative risk assessment ought to be done by the research establishment which has no regulatory function," Samuels told the committee. "There should be a separation of research and regulation. That doesn't preclude regulatory agencies from doing their own research, go through their own process. I'm all for that. I think they should. But I personally feel that regulatory agencies would be ill advised not to ask research agencies to do quantitative risk assessment. It would be inadvisable in terms of credibility."

"You can make an argument the other way," Richard Adamson, director of NCI's Div. of Cancer Cause & Prevention, said. "Give regulatory agencies a larger science base, to do their own research."

"No matter how large you make that base, regulatory realities will skew the work of the scientists," Samuels said.

"They are advocates," committee member William Powers said. "The scientific community has responsibility to be the provider of information. The question is, do the scientific agencies have the money to do it?"

"The National Toxicology Program does bioassays," Adamson said. "NCI does epidemiology, and NIOSH determines exposure levels in plants. Those are three separate agencies. You may well say the agency to do QRA is the National Academy of Sciences. It would be hard to get away from bias."

"Those three agencies work for one boss, the surgeon general," Samuels said. "He has the responsibility to pull it together and make a quantitative risk assessment report."

NCAB Chairman Tim Lee Carter suggested that QRA be done by an "unbiased, uninfluenced agency such as the Center for Disease Control. There's no need to create a new bureau to do it."

"We're not suggesting a new bureau," Samuels said. "One time, CDC might be the one to do a risk assessment, another time not. . . . When a regulatory agency does risk assessment, it's tainted. Even when they select a board of scientific counselors, which writes a report. The agency selects those board members. Who's going to believe them? I'm not, no matter what they say in the report."

4. The nature, limitations, and rôle of scientific models.

5. The concept of safety (threshold). "We ought to recognize what the public means by safety," Samuels said. "When we make a risk assessment, we should not use a term like safety. It had been HEW's policy since 1967, that there are no known safe levels of a carcinogen."

"In radiology, we use 'tolerable,'" Powers said.

"That means something specific," Samuels answered. "We (in the AFL-CIO Industrial Union Dept., for which Samuels is director of health, safety and environment) use 'risk.' People understand risk."

"In ionizing radiation, there is no known safe dose," Powers said. "Tolerable, yes."

6. Special contributions of NCI. Committee members Gerald Wogan and Janet Rowley cited several areas of research supported by NCI which deal with identification of potential carcinogens and host reactions.

7. Reaffirmation of NCI's role in environmental carcinogenesis. "I would be happy if the Board would reaffirm NCI's participation in the National Toxicology Program," Adamson said. "We sit on the NTP executive committee, we review selection of compounds for testing, and we advise on testing methodology."

"We should reaffirm NCI's role in environmental carcinogenesis, not just NTP," Samuels said.

8. Need for data to be evaluated for quality in the risk assessment process, including the quality of underlying data, power of negative studies, and sensitivity.

9. Need for marshaling available resources, not only to do the work but to put it into a form useful for professional and lay audiences.

The committee agreed that the title of the report would be, "Policy on risk assessment of health effects of hazardous population exposures."

EIGHT CCRU, 20 CCSP APPLICATIONS SUBMITTED, QUALITY "HEARTENING"

"The quality of the proposals as well as the nature and scientific credentials of those applying has been heartening," Joseph Cullen, deputy director of NCI's Div. of Resources, Centers & Community Activities, said in referring to the new Cancer Control Research Unit and Cancer Control Science Program projects being implemented by DRCCA.

Eight CCRU and 20 CCSP applications were submitted and are being reviewed.

"Considerable enthusiasm is growing about the potential for cancer control science that will emanate

from these studies," Cullen said at the fall meeting of the DRCCA Board of Scientific Counselors.

Carlos Caban, chief of the Cancer Control Science & Support Branch, presented a document describing "phases of cancer control research" which he had written primarily as supplementary information for CCRU and CCSP applicants and reviewers. It includes some definitions and explanations of terms as they are being applied to cancer control research by DRCCA:

The concept of classifying cancer control research projects in terms of "phases of cancer control research" was presented for testing in the CCRU and CCSP announcements of March and April 1982. It has generated much enthusiasm, but occasional confusion over definitions and the classification of specific projects. The following questions and answers should help to clarify the "phases" idea. It results from experience with the CCRU/CCSP letters of intent and discussions between NCI staff and prospective applicants.

1. CANCER CONTROL RESEARCH

Q. 1. How can I tell cancer control research from other research or program activities?

A. Cancer control research develops or tests a specific action or intervention aimed at having a measurable population impact on an important cancer problem.

It is applied research on actions or interventions which have the purpose of reducing cancer incidence, morbidity, and/or mortality rates in populations (see also Question 3). The identification of high risk populations as targets must be tied to a planned intervention.

Q. 2. What is an "important cancer problem" for cancer control research?

A. Highest priority should go to cancers which cause the greatest mortality/morbidity in the United States; cancers for which substantial risk of cancer has been associated with common exposures; and cancers for which apparently effective actions are available. The cost effectiveness of the approach is important for cancer control research.

Q. 3. Is research into the etiology of cancer or human behavior acceptable as cancer control research?

A. No. Research to discover underlying associations and potential cause and effect relationships in cancer etiology or behavioral or clinical sciences is not cancer control research.

Cancer control research requires that evidence already exists for a biological, clinical or behavioral cause and effect association. The evidence may be used to target a high risk population for an intervention. Research aimed at developing methods, plans, or policies to intervene for population benefits is a part of cancer control. The testing of actions or interventions for impact in modifying disease incidence or outcome rates and utilizing data from these tests in the study of large scale applications also is a key part of cancer control.

Q. 4. How does epidemiology fit into cancer control research?

A. Epidemiology as a research method is important to cancer control. Studies which look for underlying cause and effect associations may lead to cancer control studies, but without focus on an intervention designed to modify the situation, they do not represent cancer control. Study designs and methods from epidemiology or statistics, such as case control or cohort studies, can be used in cancer control research, but the emphasis on intervention must be included.

Q. 5. What types of studies are appropriate for cancer control?

A. Study designs generally progress through a sequence from nonexperimental to experimental designs. The nonexperimental designs may be descriptive studies or analytical studies, such as case control, cohort, or cross sectional studies. This sequential logic is the basis of the concept of phases of cancer control studies. To be cancer control, the purpose of the study must relate to an intervention for a population. The studies may pertain to cancer prevention or cancer management.

Q. 6. Where does a study fit which seeks information about cancer or an intervention so that a cancer control hypothesis can be developed?

A. The distinction between basic or clinical research and cancer control research at the point of interface may at times be difficult.

It is clear that this is an important type of study which will be necessary for designing future cancer control studies. However, unless the study clearly relates to an intervention or development of methods of population intervention, it is not part of cancer control.

II. PHASES OF CANCER CONTROL

Q. 7. Is hypothesis development (phase 1) really a research project?

A. Hypothesis development here refers to the process of synthesizing the avilable scientific evidence about a known cancer problem and the possible effective actions or interventions which might be tested to see how they may influence the severity of the cancer problem, and the basic or clinical work that precedes this thinking. The product is a testable hypothesis which is supported by evidence from the scientific literature or other research by the investigator. It may have required prior descriptive or analytical studies as noted above.

Q. 8. What about a study which goes from one phase to another phase during the grant period?

A. The investigator may wish to design a study which moves sequentially from one phase to another during the study period. The various phases would

need to be integral to the intervention hypothesis which will be tested in the study. For example, it may be necessary to obtain certain information during one phase before deciding which way to go in the next phase. Since the phases have been set up as discrete steps which build on evidence obtained at the prior phase, the investigator must be prepared to justify each phase of the study separately on its scientific merits at the time of application and review. Thus a sequential phase 2-3 study would need to be justified as a phase 2 study, and also as a phase 3 study. The latter may be very difficult with any degree of detail. Thus, we generally are classifying these sequential studies initially at the lowest phase.

Q. 9. How will a study be classified it if cannot begin immediately after award?

A. Most studies require some startup time and activities before launching the entire study. The scientific evidence in support of the study, the complexity of the study itself, and the types of activities proposed during startup will determine whether the study is at a specific phase and how much startup time is reasonable. Pilot testing of survey forms which are a small part of the entire study may be appropriate, whereas extensive data collection and analysis to obtain evidence about a key intervention activity upon which the entire project depends would not be appropriate as a startup activity. The reviewers will look at this type of information when evaluating the phase of the proposed study.

Q. 10. What do you mean by a phase 4 defined population study?

A. Phase 4 studies are designed and performed in a large, distinct, and well characterized population or a sample of the population chosen in such a way that the results obtained are representative of the population and valid inferences can be made if the results are generalized to the entire target population. The quantitative description of the denominator (defined) population should allow for calculating rates. Evidence should be presented that these rates may be validly applied to largaer defined populations that potentially may benefit from the intervention. In some instances, the study may focus on institutions responsible for preventive actions or providers of care, etc., rather than on individuals in the population.

Q. 11. Can a phase 3 study also be a phase 4 study?

A. If an investigator has access to an appropriate defined population, and is ready for a phase 3 study, it may be possible to design the study using the defined population so that the results would be generalizable to the entire defined population. This could result in significant savings in research time, effort and money compared to doing separate phase 3 and phase 4 studies. The investigator would need to include an appropriate justification for this approach.

III. CANCER CONTROL INTERVENTIONS: PREVENTION OR MANAGEMENT

Q. 12. What do you mean by an effective control measure, action, approach, or intervention?

A. Those words are trying to capture the idea that cancer control means to do something which is effective to prevent or interrupt the normal disease process in a way that has population benefits. This is different than "basic" research in the biological, clinical or behavioral sciences, where the intent is to understand the disease process, and to discover cause and effect relationships.

Q. 13. How does education fit into the phases?

A. Education may be a control measure or intervention by itself or may be one component of an intervention program. The cancer control phases are applicable to education control studies. If it is used solely as an intervention, then appropriate evidence should be supplied that it has been effective in past studies and has reasonable potential to be effective when applied to the specific cancer problem under study. Change in knowledge as measured by pre-test and post-test comparison may not be sufficient to show effectiveness in producing desired action or behavioral change. Education without any evaluation measure is unacceptable.

Q. 14. What about screening tests?

A. A screening test must be assessed in terms including sensitivity and specificity, cost effectiveness and minimal subject risks when considered as a cancer control research project. Thus, a screening test might be tested in phase 2, 3, or 4 studies. The initial development of the test, or testing as a diagnostic tool in a patient population would not be part of cancer control.

IV. ISSUES RELATED SPECIFICALLY TO CCRU/ CCSP APPLICATIONS

Q. 15. Is a chemoprevention study acceptable in a CCSP?

A. Human chemoprevention studies were not included as a special type of allowable study for the CCSP. Any chemoprevention study will be judged on its merits as a cancer control study like other intervention studies and be classified in an appropriate phase. All NCI chemoprevention studies, including those in CCRUs, will have a second NCI review on safety and protocol, but this will not affect the initial merit review of the application or funding of other parts of the proposal.

Q. 16. Does a developmental project need a hypothesis which includes an action or intervention?

A. Yes. A purely descriptive or analytic study, which is not linked to a plausible cancer control hypothesis, is inappropriate.

Q. 17. Since developmental funds for a specific project are limited to two years, is it necessary to include developmental projects which begin in year 3?

A. No. The total request for developmental funds for the first two years will be critically reviewed as stated in the CCRU/CCSP announcements. The reviewers will also judge the internal review process by which those projects were chosen for inclusion. Reviewers may approve developmental funds for years 3, 4 and 5, and the applicant will have the flexibility to decide how to spend those funds after appropriate internal review. These choices and results will then be peer reviewed when a renewal application is submitted.

CCRU and CCSP grants, although closely resembling program projects, will not be reviewed under the same policy recently adopted for P01s. That new policy stops the practice by P01 review committees of throwing out weak individual projects and scoring the application on the basis of the remaining elements. Henceforth, program projects will be competed as submitted, with the weaker elements holding down the scoring of the entire grant.

CCRU and CCSP review will be conducted in two stages, before going to the NCAB for final review. The first review will be conducted by five committees, each selected for expertise in one of five relevant areas. The appropriate elements of each application will be reviewed by each committee, which will have the authority to disapprove weaker elements. Those elements then will not be in the application presented to the second review committee, which will do the scoring.

COMPLIANCE GRANTS AWARDED, CONTRACT ON BLACK/WHITE DIFFERENCES PENDING

Joseph Cullen, deputy director of the Div. of Resources, Centers & Community Activities, updated the division's Board of Scientific Counselors on various DRCCA activities.

"As a result of an RFA announced in Fy 81, five grants under the topic of "Cancer Patient Complaince to Therapeutic Regimens" have been awarded or will shortly be so—Dr. Beumer, UCLA (Dental compliance of irradiated cancer patients); Dr. Fisher, Univ. of Pittsburgh (Cancer patient compliance with therapeutic regimens); Dr. Levine, USC (Assessment and enhancement of compliance with chemotherapy); Dr. Cassaleth, Univ. of Pennsylvania (Alternative cancer treatment: Active non-compliance); and Dr. Strain, Mount Sinai Medical Center (Patient and staff compliance with cancer therapy)."

One contract, "Black White Differences in Cancer Survival," is in development. Its objective will be to identify factors (in addition to stage and age) which further explain black/white survival differences for patients with invasive or in situ cancers of the female breast, colon (excluding rectum), urinary bladder, or corpus.

This concept was reviewed by DRCCA BSC in October 1981.

This contract is being jointly sponsored by DRCCA and the Div. of Cancer Cause & Prevention. Jan Howard of DRCCA and Max Myers of DCCP are the project officers. Funding, for 40 months, will total an estimated $1.2 million from DRCCA and $450,000 from DCCP. DCCP will consider adding more dollars if that becomes necessary, and will provide intramural statistical support.

"The focus has been shifted from a retrospective to a prospective study as suggested by certain members of the BSC. An exploration of data contained in the medical record indicated that a prospective focus would be more useful, given the interest in behavioral and treatment data. Moreover, a prospective approach will also facilitate the collection of appropriate slides for the pathologic review," Cullen said.

"The project plan and RFP were both completed in August 1982 and the sign off process was begun. Simultaneously, a sources sought announcement was prepared for small business procurement. During that process it was determined that the quality of the study would be enhanced by merging two subcategories of the overall workscope: the coordinating center and the pathology laboratory. The RFP has just been revised to reflect that merger."

It is anticipated that announcement of the RFP's availability will occur in mid-November and an award will be made in September 1983.

"The Smoking, Cancer & Health Program is now in office of the director of DRCCA. It will eventually develop program interaction with several of the branches (specifically: Education, Occupation, CCS and others if indicated," Cullen said.

Two program announcements in smoking research have been released (***The Cancer Letter,*** Nov. 5), for prevention and cessation of tobacco use in blue collar workers, and behavioral, epidemiological and biobehavioral studies related to the use of smokeless tobacco in adolescents.

DRCCA Director Peter Greenwald has emphasized antismoking activities as a high priority area for the division. A BSC committee agreed but concluded that the program currently in place was not well defined, that there was not an overall plan with carefully articulated and integrated goals and objectives.

"In keeping with these advisory comments and the recommendations that ensued (which were appointment of a working advisory group, appointment of a director, and methods, instrumentation and data provisions)," Cullen said, "all of these are now a fact or are in the process of being made fact. I have assumed the director role and will gradually hire several key individuals who will work at the branch level. A working advisory group is being identified to become the second level of filtration between the branch and six working groups now in formation. A long range plan is about to be launched."

NCAB ORGAN SYSTEMS COMMITTEE MEETING CANCELED IN CONFLICT

The meeting of the National Cancer Advisory Board's Organ Systems Committee, scheduled for Nov. 28 at 4 p.m. (*The Cancer Letter*, Nov. 12), has been canceled.

Some committee members could not make that earlier time, on Sunday afternoon prior to the Nov. 29-Dec. 1 NCAB meeting, and asked that it be changed to 7 p.m. However, another Board committee, the Activities & Agenda Committee, was scheduled for that time, and several members served on both. That meeting will be held in Bldg. 31, conference room 9.

Organ Systems Committee Chairman William Powers told *The Cancer Letter* he was "concerned, that we were not allowed to have a meeting." The committee would have discussed a number of issues related to the reorganization of the Organ Site Program.

Another issue was the funding of Organ Site Program grants in the just concluded 1982 fiscal year. The priority score cutoff level for those grants was 165, although the R01 funding level for NCI was 185.

The 165 cutoff was made necessary because the program's entire $13 million budget had been consumed when the awards reached that level, by the headquarters budgets and noncompeting renewals. Funding to the 185 level would have required another $2 million.

HUEBNER RETIRES FROM NCI, NAMED SCIENTIST EMERITUS BY DEVITA

Robert Huebner, who played a major role in virus cancer research, has retired after 40 years in the U.S. Public Health Service, all but one year at NIH and the last 14 at NCI. He was named Scientist Emeritus upon his retirement by NCI Director Vincent DeVita.

DeVita announced the appointment during ceremonies honoring Huebner at NIH.

"I am sure you know as well as I the list of accomplishments he has compiled during his career at the National Institute of Allergy & Infectious Diseases and at NCI," DeVita said. "He made monumental contributions to the isolation and understanding of conventional disease viruses and rickettsias.

"When he turned his attention to cancer, he made equally significant contributions to our understanding of the roles of the DNA adenoviruses and the type C RNA tumor viruses. It was he who developed the theory of oncogenes, with George Todaro.

"In addition to his pioneering work in virology, Bob's laboratory has served as a model for the combining of epidemiology with basic virology and immunology. His group has been a primary reference laboratory—officially for the World Health Organization, and unofficially to substantiate findings by other groups.

"Bob's work has earned him universal recognition among his peers, and he has been the recipient of a large number of awards and honorary degrees in this country and in Europe. Among these honors are membership in the National Academy of Sciences, the Rockefeller Award, and the National Medal of Science.

"The impact of Bob's work will continue to be felt, not only through his contributions but through his proteges. This long list includes Drs. Robert Chanock, Wallace Rowe, Janet Hartley, Stuart Aaronson, George Todaro, Paul Black, Albert Kapikian, and a host of traineers from many countries abroad.

"In short, Bob Huebner is a biologist of extraordinary depth and accomplishment, and his knowledge and belief in the promise of science have inspired young scientists for decades.

"It is with great pride and honor, therefore, that I am able to announce that we will continue to have him with us as a Scientist Emeritus. We can thus expect him, as Scientist Emeritus, to continue his association with the Laboratory of Cellular & Molecular Biology, in the Div. of Cancer Cause & Prevention, of the National Cancer Institute."

GALLO, FOUR OTHERS SHARE ANNUAL LASKER AWARD FOR BASIC RESEARCH

Five scientists whose findings provide a link between viruses and cancer, and two geneticists whose discoveries may open the way to the treatment of a score of hereditary diseases have been named winners of the 37th annual Albert Lasker Medical Research Awards.

The five scientists sharing the 1982 $15,000 Award for Basic Research are Michael Bishop and Harold Varmus of the Univ. of California (San Francisco); Hidesaburo Hanafusa of Rockefeller Univ.; Raymond Erikson of Harvard Univ.; and Robert Gallo, head of the Tumor Cell Biology Laboratory at NCI.

Sharing the $15,000 Award for Clinical Research are two investigators, Roscoe Brady, chief of the Developmental & Metabolic Neurology Unit at the National Institute of Neurological & Communicative Disorders & Stroke, and Elizabeth Neufeld, chief of genetics and biochemistry at the National Institute of Arthritis, Diabetes, Digestive & Kidney Diseases. Their discoveries are contributing to the basic knowledge of two different groups of genetic childhood disorders, including Tay-Sachs disease.

NCI CONTRACT AWARDS

Title: Hamster respiratory carcinogenesis resource for in vivo/in vitro correlation studies
Contractor: Univ. of Maryland Baltimore, $499,190.

Title: Natural toxicants in foods
Contractor: Tracor Jitco, $76,614.

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, citing the RFP number. NCI listings will show the phone number of the Contracting Officer or Contract Specialist who will respond to questions. Address requests for NCI RFPs to the individual named, the Blair Building room number shown, National Cancer Institute, 8300 Colesville Rd., Silver Spring, Md. 20910. RFP announcements from other agencies reported here will include the complete mailing address at the end of each.

RFP NCI-CB-33859-35

Title: *Construction and characterization of genomic DNA libraries*

Deadline: *Jan. 17, 1983*

NCI is seeking proposals for a contract in support of NCI laboratories to generate, screen and characterize recombinant bacteriophage containing entire genomic representations (libraries) from specified wild mouse strains. The purpose of the contract is to isolate and characterize specific immunoglobulin genes.

DNA for libraries and hybridization probes for specific immunoglobulin genes will be provided by the government. Offerors must be located within 45 minutes travel time of NIH, Bethesda, Md. and must possess a radioisotope license and biohazard facility.

RFP NCI-CB-33860-35

Title: *Characterization of HLA antigens on donors' lymphocytes*

Deadline: *Jan. 17, 1983*

The Div. of Cancer Biology & Diagnosis, NCI, is seeking contract proposals for the procurement of histocompatibility typing service in support of studies of immunogenetics in NCI laboratories. The contractor shall characterize donors' cells supplied by the government for their histocompatibility antigens using two established technologies: serologic analysis and cellular typing.

The serologic analysis will be performed by lymphocytotoxicity using as extensive a panel of reagents as possible. The cellular typing will be performed by primed lymphocyte typing and, if appropriate, HTC typing. Detailed requirements and instructions for this immunogenetic research project are contained in the RFP.

Contracting Officer for the above two RFPs: Robert Townsend
RCB, Blair Bldg. Rm. 332
301-427-8877

RFP NCI-CM-37565-21 (Amended)

Title: *Dose calculations for cancer therapy using radioactively labeled antibodies directed to tumor associated and/or tumor specific antigens*

Deadline: *Approximately Jan. 20*

The above announcement which was published in ***The Cancer Letter,*** Sept. 24, is hereby amended to revise the scope of work, as follows. Organizations requesting this RFP under the above stated announcement need not resubmit requests.

NCI requires organizations having capabilities and facilities to develop methods for the calculation of radiation doses to tumors and normal tissues using tumor-associated antibodies labeled with the various isotopes (alpha, beta, or gamma emitters) likely to be administered for cancer therapy. Calculational methods must be correlated with three-dimensional patient anatomy, isotope distribution and specific activity and should be compatible with conventional radiotherapy treatment planning systems insofar as possible. Contractor shall develop calculational model(s), criteria and guidelines for dose calculations

Calculations are required which predict the absorbed dose distribution in both tumor and normal tissues due to radioactively distributed generally non-uniformly in an arbitrary volume. The desired level of accuracy for the dose calculations is that presently attainable, using the MIRD system for internal emitters. The calculations shall be verified by measurements in an anthropomorphic phantom with main organs and tissues based on ICRP "reference-man" composition. Calculations and measurements for both "tumor" and normal tissue shall be performed for simulated tumors (to include non-uniform distributions of radioactivity in irregular volumes) located in the head, thorax, abdomen and pelvis. Documented access is required to the necessary scanners, e.g., CT, PET, SPECT, or gamma cameras, to determine the quantitative anatomy of the phantom and the distribution and specific activity of the radioactivity.

The contractor shall 1) develop methods and criteria for the accurate measurement of both the distribution and specific activity of the radioisotopes in vivo, 2) develop methods and criteria for the assessment and inclusion of the effects of tissue inhomogeneities, and 3) develop methods and criteria for the measurements of effective half-lives of administered isotopes.

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