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FCRF CONTRACTS RECOMPETITION WILL BE ALONG SAME LINES AS IN 1982 BUT FOR AT LEAST SEVEN YEARS

Recompetition of the five contracts for management of Frederick Cancer Research Facility, which together make up the largest contract procurement in the Dept. of Health & Human Services, will be more or less along the same lines as the recompetition in 1982, with one

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In Brief

ANGEL BRADLEY, NCAB MEMBER, DIES; THREE STATE COLORECTAL CANCER SCREENING EFFORT BIG SUCCESS

ANGEL BRADLEY, member of the National Cancer Advisory Board since 1982, died last month of breast cancer. She had been undergoing treatment for the disease when President Reagan appointed her to one of the Board's lay seats. There are three years remaining on her term .... **COLORECTAL CANCER** screening project in Pennsylvania, Delaware and New Jersey drew 16,000 persons to 62 participating hospitals during a five hour period on a Saturday in May. Phones set up to answer questions on the screening logged more than 25,000 calls. The screening consisted of an onsite stool blood test, a digital rectal exam, and a take home three slide stool blood test. Those with symptoms were referred to their private physicians or to hospital staffs for further tests. The project was sponsored by four divisions of the American Cancer Society—Philadelphia, Pennsylvania, New Jersey and Delaware—and WCAU-TV, the CBS affiliate in Philadelphia .... **NCI STAFF** members receiving Public Health Service awards: PHS Superior Service Awards, Philip Amoruso, NCI associate director for administrative management, and Brian Kimes, associate director for extramural research programs in the Div. of Cancer Biology & Diagnosis. Asst. Secretary for Health Special Citation, Myra Darrow, Amoruso's secretary. ASH Award for Exceptional Achievement, John Hartinger, chief of the Financial Management Branch. Distinguished Service Medal, Ira Pastan, chief of the Laboratory of Molecular Biology in DCBD, and Elizabeth Weisburger, assistant director for chemical carcinogenesis in the Div. of Cancer Etiology. PHS Volunteer Award, Marie Priest, secretary in the Laboratory of Molecular Virology. Meritorious Service Medal, Samuel Broder, associate director for the Clinical Oncology Program in the Div. of Cancer Treatment, and Philip Pizzo, chief of the Pediatric Branch of DCT. NIH Director's Awards, Gilbert Beebe, statistician with the Clinical Epidemiology Branch in DCE, and Marianne Wagner, NCI personnel officer. Outstanding Service Medal, Edmund Wendel, biologist with the Laboratory of Viral Carcinogenesis in DCE. NIH EEO Award of the Year, Nola Whitfield, program analyst in the Div. of Extramural Activities.

FCRF RECOMPETITION COULD BE FOR SEVEN, POSSIBLE AS MUCH AS 10 YEARS: DEVITA

(Continued from page 1)

important exception: the award period will be for at least seven years, possibly as much as 10, if HHS concurs with NCI plans.

NCI Director Vincent DeVita told the FCRF Advisory Committee Monday that when the contract was recompeted in 1982, "I would have preferred 10 years, but getting a 10 year contract from the government is not easy. We went for five, which comes up in a hurry. I would like somewhat more than that."

Seven year awards would be considerably easier to get through the department than 10. The committee later in the meeting agreed to recommend seven years, largely on the basis that NCI's new Outstanding Investigator Grants, designed to provide stability of support, are for seven years. DeVita had said that stability at FCRF was one of his primary concerns.

FCRF is located on about 70 acres of Ft. Detrick, in Frederick, Md., about 25 miles northwest of the NIH campus in Bethesda. That space was turned over in 1972 to HHS (then HEW) by the Army which had used it for development of biological warfare capabilities.

Litton Bionetics Inc. won the first contract for management of the facility and for conducting a basic research program. When the contract was recompeted five years later, no competition developed and NCI was in the uncomfortable position of having to negotiate solely with LBI.

NCI, backed by the National Cancer Advisory Board, decided in 1982 that the recompetition would be broken up into five contracts. LBI lost the big one, for operations and technical support, to Program Resources Inc., but won the contract for the basic research program. Harland Sprague Dawley Inc. was awarded the contract for animal production; Data Management Services Inc. for scientific library services; and Information Management Services Inc. for computer services. There was spirited competiton for each of the five contracts.

Four of the five contracts involve "award fees," which contractors' profits. The fees are determined by NCI staff after analysis of the contractors' performances for each six month period and are paid from amounts determined in the contract negotiations. The basic research program contract provides a fixed fee.

Total costs and fees for the five contracts in the last complete contract year, which ended in September, 1984, were:

PRI for operations and technical support, $29,812,573. Available award fee for the first six months was $1,157,071; amount awarded was $696,557. Available for the second six months, $1,157,070; awarded was $718,540.

Harlan Sprague Dawley for animal production, total amount, $1,608,693. Available for award for the first six months, $56,305; amount awarded, $42,443. For the second six months, $56,305; awarded, $45,258.

Data Management Services for scientific library, total amount, $536,448. Available for award fee in first six months, $18,775; amount awarded, $17,087. For second six months, $18,776; awarded, $16,962.

Information Management Services for computer services, total, $726,378. Available for award fee in first six months, $31,234; awarded, $24,494. Second six months, $31,235; awarded, $24,482.

Litton Bionetics for basic research, total, $6,957,091. The fixed fee for the year was $486,996.

DeVita said that while the recompetition "will be pretty much along the same lines as in 1982, there may be some nuances that involve some change." He did not elaborate on that.

Seven NCI intramural laboratories from three research divisions are located at FCRF. DeVita said he is satisfied now with the mix of intramural programs housed there and the contract supported extramural basic research being carried out in the LBI contract. Availability of space there permitted NCI to close the off campus intramural labs which had been supported by contracts with firms in the Washington area for several years when space on the NIH campus became unavailable.

Announcement of the impending recompetition will be made this fall, with the RFPs to be issued soon thereafter.

The current contracts will expire in September, 1987. Complexity of the FCRF contracts and awards process require the two year lead time. David Keefer, deputy chief of the Research Contracts Branch, distributed a handout titled, "Steps in the NCI Contracting Process." He said, "This should be subtitled, 'It's a Wonder They Ever Get Anything Done.'" The normal contract process requires about 10 months from approval of the concept to award. The FCRF recompetition in 1982 required two years from concept approval to awards.

Keefer said that after the RFPs are issued, preproposal conferences will be held.

Committee member Hilary Koprowski commented that under the leadership of Peter Fischinger, NCI associate director for FCRF; George Vande Woude, LBI's principal investigator for the basic research program; and Raymond Gilden, director of Frederick operations for PRI, "the quality of work is unbelievably good, with excellent science. I like the spirit of cooperation and enthusiasm."

"I will second that," committee Chairman

Werner Kirsten said. "Not only is there excellent science, but we are beginning to see stability."

DeVita agreed. "I like the way it is now. The difference is like night and day. Now, we can use Frederick when something comes up (such as the AIDS work being done there)." He said Fischinger "has done a great job."

OLD MSK GRANT REPROGRAMMED, NCI MAKES FINAL '85 CONSTRUCTION AWARDS

Final disposition of NCI's construction grant budget has been made following approval of NCI's request to rebudget $1.5 million from an unused 1980 grant to Memorial Sloan-Kettering Cancer Center.

NCI had feared that the MSK money might have to be returned to the Treasury (**The Cancer Letter**, May 24). A ruling was obtained last week which permits funding the new MSK grant of $1.1 million with the 1980 award; the $400,000 remaining was reprogrammed to other grants.

The largest award, $2.5 million, went to the Univ. of Pennsylvania. Others, for completions of awards partially funded last year, went to the Univ. of Rochester, $900,000; La Jolla Cancer Research Foundation, $306,900; and Univ. of Arizona, $774,000. A new grant, to Beckman Research Institute (City of Hope), of $826,000, was partially funded with the $269,100 remaining in the construction grants budget.

Arizona had received $750,000 earlier this year from the FY 1985 budget; the additional money now completes funding of that grant.

Meanwhile, a bill introduced by Congressman Don Fuqua (D.-Fla.), chairman of the House Science & Technology Committee, could provide a major leap forward in federal support for upgrading of university research facilities. It probably has little chance of enactment in its present form, however.

The bill (HR 2823) would require six federal agencies involved in support of research and development, including HHS, to set aside 10 per cent of their R&D budgets for university research facilities. It would provide a one time startup fund of $470 million in the 1987 fiscal year, $200 million of which would go to HHS. Starting in FY 1988, the 10 per cent set aside would go into effect, modified if necessary to accomodate swings in R&D budgets.

If the 10 per cent were to be required of HHS agencies across the board, NCI's set aside would be in excess of $100 million a year, a mind boggling figure in relation to the $1-5.5 million budgets in recent years. The most NCI has ever awarded in a single year was $44 million, in 1972.

The facilities survey commissioned by Armand Hammer and the American Cancer Society found that research facilities needs of all 197 institutions eligible for NCI construction grants could result in requests to NCI of about $1.3 billion from 1986-1990. A 10 per cent set aside would cover only about half of that projected need. Fuqua's bill was referred to three other committees—Agriculture, Armed Services and Energy & Commerce.

NCI PROGRESS REPORTED ON AIDS VACCINE DEVELOPMENT, INTERVENTION STRATEGIES

Peter Fischinger, NCI associate director who oversees the Frederick Cancer Research Facility and is head of NCI's AIDS Task Force, reported to the FCRF Advisory Committee Monday on the status of AIDS vaccine development and interventive strategies. The report follows:

The question of a safe and effective subunit vaccine is dependent on adequate high quality production of HTLV 3. Using various formats, the subunits composed of the major envelope gene (env) glycoprotein (gp), together with its transmembrane protein (tmp) are being used to determine whether a protective response could be elicited in species which can be infected with HTLV 3.

Until recently, large scale virus production was comprised of 250/L/week of the HTLV 3B, the NCI prototype strain. Extensive subunit preparations were made and several species were inoculated with this material. At this time, several permutations have been initiated in the production area. The first is an attempt to get more high quality gp in the virion preparations. Rapid harvest protocols, which produce fresher, better quality virus, but require a more labor intensive effort, have now been implemented. Secondly, it is well known that extensive genetic heterogeneity exists among HTLV 3 isolates, especially in the env gene product. The most ready interpretation is that this signifies the presence of alternate epitopes involved in eliciting protection, and that such change represents escape mechanisms from normal defensive responses. Accordingly, based on sequencing data, it was considered appropriate to initiate production of two variant strains of HTLV 3. One of these has been derived from molecularly cloned, infectious proviral DNA, thus insuring absolutely that a single virus species is being considered. This virus is reasonably closely related to HTLV 3B. Subsequently, the evolution of genetic changes can be clearly documented vis a vis natural or artificially induced environmental pressure. The second agent is the Haitian RF isolate which is the virus farthest removed genetically of the several dozen closely studied NCI variants. This virus differs by 22 per cent in its amino acid sequence from the prototype. This is even more than the published ARV isolate which has about 17 per cent amino acid difference.

It is important to note that the extent of changes represent "radial" evolution, in that the RF and the ARV isolates are not closer to each other than to HTLV 3B.

The plan is to use the subunit products of these alternate agents to develop analogous vaccine preparations. The object is to determine whether cross protection from infection will be feasible, or whether a number of different isolates would have to be represented in a composite vaccine preparation.

Current Vaccine Preparations

Subunit materials of HTLV 3B: Of the various possible formats, the most advantageous highly immunogenic approach was the use of glycoside Quil A immune stimulating complexes (ISCOMS). These have shown to be vastly superior in inducing protection from feline leukemia to any other previously described format. A number of preparations were made and inoculated into mice, guinea pigs, rabbits and rhesus monkeys. Although toxicity was noted with large doses of adjuvant in mice, no toxicity was apparent in other species. The HTLV 3B containing ISCOMS displayed a number of known viral proteins as well as several unknown proteins. The identity of the proteins is being sought by amino acid sequencing, so that the protein sequence correspondence can be examined relative to the known HTLV 3B DNA sequence.

The proviral DNA clones have also been used to express portions of the various genes to proteins in bacteria or yeasts. Generally, discrete regions could be selected for protein translation, and these could serve either as alternate second generation blood antibody test materials or as vaccine preparations. A major difference is that the natural viral env products are heavily glycosylated, but the genetically engineered products generally have no sugar residue. The advantages or disadvantages of both approaches have to be compared. Currently, genetically engineered protein products are being obtained from at least three collaborating for profit concerns, and are being inoculated into several species.

Responses to Vaccine Preparations

Various animal species have been inoculated with HTLV 3B containing ISCOMS. The entire spectrum of proteins incorporated into ISCOM matrices have been analyzed with human AIDS sera and human sera from clinically normal individuals who made antibodies after HTLV 3 infection. All of the proteins in ISCOMS reacted well only with human sera containing known viral antibody, but not with control sera. This indicated that the proteins in ISCOMS are relevant as an aftermath to infection of man by HTLV 3. Mice and guinea pigs reacted strongly to all proteins found in ISCOMS. Monoclonal antibodies have been made to some of these ISCOM protein components. The same ISCOMS were also inoculated into rhesus monkeys. After three monthly inoculations of HTLV 3 ISCOMS, the monkeys will be challenged with infectious virus to determine whether protection occurred. Protection will be evident if the monkeys fail to release virus after infection, or if they fail to make antibodies to HTLV 3 viral core components.

NCI Clinical Studies of AIDS

NCI naturally treats AIDS patients with Kaposi's sarcoma using (various) protocols. The current results are compatible with or better than others.

A major input has been the initiation of antiviral treatment in AIDS with suramin. This antiparasitic drug has a virus reductive effect on HTLV 3, both in vivo and in vitro. On discontinuation of treatment, virus could come up again in some patients. Immune deficiency was not objectively ameliorated in the current study. However, higher suramin dose studies by Belgian workers suggest that suramin could also improve immune status. Combination therapy using, e.g., IL-2 to stimulate T helper cell growth, together with suramin mediated protection of these cells, could be advantageous.

Recently, other drugs have shown a positive antiviral effect in vitro against HTLV 3. One of these appears to hold particular promise in culture. This is a company proprietary substituted nucleoside which is relatively nontoxic at concentrations which are highly inhibitory to virus. NCI is considering a pilot phase 1 trial in man with this drug at the Clinical Center.

DECISION ON BREAST CANCER STUDY DELAYED UNTIL CONSENSUS CONFERENCE

NCI's Executive Committee has decided that the stage 2 breast cancer adjuvant diet trial may not proceed into the feasibility phase until after the NIH consensus development conference on adjuvant therapy for postmenopausal patients.

The Executive Committee did agree to allow the pilot study, which will accrue 40-42 patients by the eight participating clinical centers, to proceed. The consensus conference will be held Sept. 9-11; NCI has set Sept. 30 as the decision date for proceeding or not with the feasibility study.

Memorial Sloan-Kettering withdrew from the study when the decision was made to not give chemotherapy to any of the participating patients. MSK has indicated it would consider the study if it were limited to post menopausal, ER positive patients with all getting tamoxifen, half randomized to the low fat diet. Other participating institutions have indicated they also would be more comfortable with that protocol, rather than the plan to offer no treatment to any participants, with half randomized to the low fat diet.

DCT BOARD HEARS STATUS REPORT ON INTRAMURAL, EXTRAMURAL PROGRAMS

Current status of Div. of Cancer Treatment programs, including the extramural programs the division supports, was reported to the DCT Board of Scientific Counselors at its recent meeting.

The report, based on the White House plan for limiting the number of competing NIH grants to 5,000 through the multiple year funding scheme, noted that for NCI as a whole:

"Program project (PO1) and traditional (RO1) grants are being funded through priority score 158 (grants funded during the first round of FY 1985 were funded through priority score 175). All grants are being funded at full recommended levels. The current grant funding plan for FY 1985 does include multiyear funding assumptions. However, the multiyear funding issue has not yet been finally resolved, and these figures will certainly change once the final FY 1985 funding plan is developed. The new Outstanding Investigator Grant applications have been reviewed and a funding plan has been developed to pay these grants through priority score 158.

(Editor's note: The compromise which would fund 6,000 competing NIH grants would lift NCI's payline to about 164—see last week's issue of **The Cancer Letter**).

"The funding plan for the clinical cooperative groups provides for funding in sequence competing renewals through priority score 200 at 85 per cent of recommended amounts. New and supplemental applications as well as out of sequence competing renewals are not being funded during FY 1985. Noncompeting continuations (type 5) are being funded at previously negotiated amounts (approximately 85 per cent of recommended). Other cooperative agreements include the National Cooperative Drug Discovery Groups (The RFA was reissued during FY 1985) and the Kaposi's sarcoma grants which were awarded during FY 1983 and are now in their third and final year.

"There have been a few adjustments in the contracts line as final negotiations have been conducted on contract recompetitions. However, the basic funding plan for contracts has not changed since the October meeting. Each contract is reviewed annually by a staff advisory committee to assure that contractor performance has been satisfactory.

"DCT has received over 150 SBIR contract proposals which will be reviewed through the Div. of Extramural Activities for funding during FT 1985.

"The FY 1985 appropriation was below the planning level and therefore DCT took an overall four per cent reduction in the inhouse budget. In addition, DCT absorbed a $1.4 million reduction (mostly in inhouse spending) due to the Deficit Reduction Act. That did not survive the legislative process; however, NCI has not yet determined the disposition of the funds which had been 'returned' by the divisions. It is anticipated that DCT will be able to restore its inhouse budget to the original October estimates when these funds are reallocated by NCI.

Biological Response Modifers Program

"In FY 1985, BRMP issued one new RFA entitled, 'The use of oncogene related products for cancer therapy,' for $500,000. This RFA was reviewed and approved by the Board at the June 1984 meeting. There were 18 submissions in response to the RFA, and five applications received fundable priority scores. In addition, the FY 1985 noncompeting continuation cost for one RFA grant awarded in FY 1983 was approximately $84,000. This grant will expire in FY 1986.

"Program announcements reissued in FY 1985 were:

"1. Determination of the therapeutic usefulness of purified cytokines.

"2. Anticytokine monoclonal antibodies in cancer models.

"3. Use of tumor associated antigens as immunogens.

"4. Development of genetically engineered cell products for therapeutic use as biological response modifiers.

"5. Use of growth factors, maturation factors and antigrowth factors in animal tumor models.

"6. Development of cell lines producing lymphokines and cytokines for therapeutic use as biological response modifiers.

"There were eight task orders continuing into FY 1985. These included two phase 1/2 clinical studies to evaluate natural and recombinant human IL-2, three studies of 'unarmed' MoAb T101, and three studies to evaluate MoAb immunoconjugates. These trials are progressing as planned.

"In FY 1985, six additional clinical task orders are being solicited from the master agreement holders. These are:

"1. Phase 1 clinical trial of combination of anti GD3 MoAb and either a biologic or a cytoreductive agent.

"2. Phase 1/2 clinical trial of natural and recombinant IL-2.

"3. Phase 1 clinical trial of cytotoxic activated lymphocytes and IL-2.

"4. Phase 1 clinical trial of combination of natural or recombinant cytokines and cytoreductive therapy.

"5. Phase 1 trials of interferon combinations.

"6. Phase 1 clinical trial of poly A-poly U and ampligen in cancer patients.

"In FY 1985 there were two recompetitions: Chemical couple of cytotoxic agents to MoAb and

production of hybridomas secreting MoAb to lymphokines. In addition there were two new RFPs solicited: The preclinical assessment of MoAb, and the development of screening procedures for testing the potential antitumor efficacy of human lymphokines on human cells.

Cancer Therapy Evaluation Program

(See above on funding of clinical cooperative groups).

"The only RFAs showing in this budget are continuing commitments for surgical oncology research and planning that were initiated in FY 1985 and FY 1984.

"The FY 1985 budget consolidated contracts previously reported as Phase 1, phase 2/3, and pharmacokinetics into the new 'drug development' contracts. The total value of the new contracts is approximately $800,000 greater than the previous contracts for phase 1 and phase 2/3. In addition, increased funding ($415,000) has been provided to expand the support contract for FDA requirements. Funds were also allocated to CTEP to support a contract with the Pan American Health Organization for clinical studies in Latin America, as well as contracts to support clinical trials and program management.

Clinical Oncology Program

"Two major financial changes have occured in COP since October. It experienced a significant downward financial adjustment of $430,000 to the intramural line as a result of the final FY 1985 appropriations. This reduction was taken by all COP branches as a four per cent cut to all intramural programs across the board.

"Secondly, COP continues to proceed with development of an interagency agreement with the Uniformed Services Univ. of the Health Sciences and the Radiation Oncology Branch and Navy Medical Oncology Branch. This agreement allows (a) scientific collaboration between the two branches and the Naval Hospital; (b) gives our staff fellows access to a greater patient population with a wider diversity of cancers thereby improving the respective training programs; and (c) improves the quality of services provided by the Navy Radiation Oncology Dept. which benefits patients treated by the NCI-Navy Oncology Branch.

Developmental Therapeutics Program

"The DTP contracts budget has been reduced from a projected $34.721 million in October 1984 to a current (May 1985) budget of $31.85 million. This $2.8 million reduction was necessary due to the FY 1985 actual appropriation being somewhat less than DCT had expected. As a result, DTP made a series of funding decisions in January to reduce operations by nearly $2.9 million. This was accomplished by implementation of the following actions:

"A. Cancelation of a new contract initiative for the development of novel formulation approaches for pharmaceuticals; and cancelation of a developmental contract pursuing new screening models for correlating in vitro drug sensitivity with in vivo response rate.

"B. Reduction of: the number of compounds being studied in preclinical toxicology saving $300,000; the scope of the preclinical pharmacology task order effort by two compounds; the synthesis task order pool by 27 per cent; the in vivo screening effort and animal contracts by $1.142 million; the large fermentation contracts in the natural products area by $350,000; and the pharmaceutical prep lab package by $200,000.

"The net result of all these actions is a general decrease in the overall level of operations for the drug development program.

"The savings mentioned above allowed DTP to purchase a cell sorter for the DTP intramural labs; start a new initiative in fungal fermentation; scale up the in vitro cell line project at FCRF; and pursue the initial steps in the renovation of adequate space for the cell line project at FCRF.

"Furthermore, it should be noted that these reductions will allow a further expansion of the cell line project and a rejuvenation of the natural products acquisition program which are planned in FY 1986.

Radiation Research Program

During FY 1985 RRP issued RFPs for neutron therapy clinical trials, development of dosimetry standards, evaluation of dosimetry calculations in interstitial radiotherapy, and evaluation of high energy electron beam treatment planning. Also, RRP issued an RFA for basic research in factors influencing NMR relaxation times in biological tissues.

"Although all projects were to be ready for award by June 30, award of the interstitial project may be delayed until early FY 1986 if funds do not become available this fiscal year. The electron beam treatment project has been delayed until FY 1987 due to the unavailability of contract funds in FY 1986.

"Long range research plans were developed for diagnostic imaging and for radiotherapy during FY 1983. These plans formed the basis for the development of new initiatives by RRP staff. In addition, RRP staff met in the fall of 1984 with an advisory group comprised of four members of the BSC to discuss new initiatives important to the radiation research community. The high priority projects identified for FY 1986 are:

"1. Computer software development for magnetic resonance imaging, estimated cost $100,000.

"2. Hyperthermia reference support (SBIR contract and regular contract), $50,000.

"3. Improvement and development of radiopharmaceuticals for employment with single photon emission computed tomography (SBIR contract), $500,000.

"4. Screening drugs for radiosensitizer activity (recompetition contract), $300,000.

"5. Clinical trials in intraoperative radiotherapy (cooperative agreement), $300,000.

"6. Studies of dose fractionation, and volume late effects in normal tissues using animal models (contract), $1.5 million.

"7. Resource center for radiotherapy software exchange (SBIR contract), $250,000.

"8. Clinical trials in photodynamics (cooperative agreement), $300,000.

"9. Group headquarters for heavy particle radiotherapy clinical trials (contract), $585,000.

"10. Clinical trials in staging carcinoma of breast, colon, and lung through diagnostic imaging (cooperative agreement), $600,000.

Projects 3, 6 and 9 received concept approval in February from the BSC; the rest were approved last month.

"In addition to the projects listed above, the Diagnostic Imaging Research Branch plans to issue a program announcement entitled 'In vivo application of magentic resonance imaging and spectroscopy for increasing sensitivity of tumor detection and monitoring response to various therapies.' This announcement was developed in response to the recommendations of the BSC advisory group which met earlier this year.

UICC ADMINISTERS THREE INTERNATIONAL FELLOWSHIP AND EXCHANGE PROGRAMS

The International Union Against Cancer is continuing its administration of three fellowship and personnel exchange programs which consist of more than 100 awards a year. These programs are:

American Cancer Society Eleanor Roosevelt International Cancer Fellowships.

These are funded by a grant from the American Cancer Society. The purpose is to enable highly qualified and independent research workers from any country to work in collaboration with outstanding scientists in another country. They are not post-doctoral training fellowships. Applicants must devote themselves to the experimental or clinical aspect of cancer research.

To be eligible, applicants must (1) submit a detailed research poan which will serve as the primary criterion for evaluation; and (2) belong to the staff of a university, teaching hospital, research laboratory or similar institution. They must provide written assurance that they will have research facilities and opportunities after they return to their home country. They must provide evidence of acceptance at the host institution during the proposed dates. They must know the language commonly used in the host laboratory.

Stipends will be related to the applicant's current salary, the salary of an investigator of comparable experience in the host laboratory, and the number of dependents. Allowances will be granted towards the cost of travel for the fellow, spouse and dependent children. The average support per awards is $20,000.

The total amount available for this program per year is $400,000. The average number of awards made is 15, from about 50 applications submitted each year.

Deadline for applications is Oct. 1.

Yamagiwa-Yoshida Memorial International Cancer Study Grants.

These are supported by a grant from the Japan National Committee for the UICC. The purpose is to enable investigators of any nationality to gain experience in, or make comparative studies of, special techniques in both the biological and clinical aspects of cancer research in a country other than their own.

Applicants must be in possession of appropriate scientific qualifications and be actively engaged in cancer research. They must submit a detailed project description and clearly identify the technique or method they wish to study and indicate the reason for choosing the proposed host institution. They must comply with the institutional commitments required for the ACS fellowships described above, and must have adequate fluency in the language of the host institution.

Each grantee will receive a living allowance toward the cost of board and lodging. No allowance will be provided for dependents. Grantees also will receive travel allowance, but not for dependents. The average support is $4,000.

Total amount of support for the program is $60,000 a year, which supports 10-12 awards made from about 50 applicants.

Closing dates for applications are June 30 and Dec. 31.

International Cancer Research Technology Transfer Project.

Funds are provided by NCI's International Cancer Research Data Bank and by UICC and its member institutions. Purpose is to promote direct and rapid transfer of information about new or improved techniques or methods between investigators located in different countries who are working in areas of basic, clinical or behavioral research relevant to cancer.

Applicants with appropriate scientific qualifications who are engaged in cancer releated research should be at an an early stage of their careers.

This program is not for established senior investigators. Applicants must provide institutional and language assurances required for the two programs previously described.

Grantees will receive living allowances based on the cost of living in the host country and will receive travel allowances. No allowances will be made for dependents. The average award is $2,000.

Total support for the program is $180,000 a year which provides for up to 90 awards selected from about 170 applicants.

There are no deadlines for applications, which may be submitted at any time.

Additional information and application forms may be obtained from International Union Against Cancer, rue due Conseil-General 3, 1205 Geneva, Switzerland.

NEW PUBLICATIONS

"Marquis Who's Who in Cancer: Professionals and Facilities," compiled under the direction of R. Lee Clark. Includes comprehensive information on more than 6,000 physicians, scientists, associated health professionals and research and treatment facilities. $150. Marquis Who's Who Inc., 200 E. Ohio St., Chicago 60611.

"AIDS: Etiology, Diagnosis, Treatment and Prevention," edited by Vincent DeVita, Samuel Hellman and Steven Rosenberg. $38. J.B. Lippincott, East Washington Square, Philadelphia 19105.

"What Are Clinical Trials All About?", published by NCI for patients who are considering taking part in trials for cancer treatment. Free. Single copies or bulk orders may be requested from Office of Cancer Communications, NCI, Bldg. 31 Rm 10A18, Bethesda, Md. 20205, or by phoning 1-800-4-CANCER.

"Diet, Nutrition and Cancer Prevention: A Guide to Food Choices," adapted by NCI from "Nutrition and Cancer Prevention: A Guide to Food Choices," written by Lorelei and Charles DiSogra. Available free from NCI, OCC, address above.

"The Safe Handling of Antineoplastics/Chemotherapeutics," an educational package produced by Germfree Laboratories Inc. Available free from the company, 7435 N.W. 41st St., Miami, Fla. 33166.

"Dying & Living: One Man's Life With Cancer," by Kenneth Shapiro. $14.95. Univ. of Texas Press, PO Box 7819, Austin 78713.

"Cancer Rates and Risks," edited by Harriet Page and Ardyce Asire. Based on data from NCI's Surveillance, Epidemiology & End Results Program. Free. OCC, NCI, address above.

"Cancer Surveys," edited by I.M. Franks. Annual subscription, $95 North America, 43 pounds in UK, 48 pounds elsewhere. Oxford Univ. Press, Journals Subscription Dept., Walton St., Oxford OX2 6DP, UK.

The following publications are available from Raven Press, 1140 Avenue of the Americas, New York 10036:

"The Role of Chemicals and Radiation in the Etiology of Cancer," edited by Eliezer Huberman and Susan Barr. $63.

"Contributions of Modern Biology to Medicine: New Approaches in Pathogenesis, Diagnosis and Therapy in Immunological and Hematological Disorders," edited by U. Bertazzoni, F.J. Bollum and M. Ghione. $34.

"Toxicology of the Blood and Bone Marrow," edited by Richard Irons. $39.50.

"New Approaches in Toxicity Testing and Their Application in Human Risk Assessment," edited by A.P. Li, T.L. Blank, D.K. Flaherty, W.E. Ribelin and A.G.E. Wilson. $68.

RFP AVAILABLE

RFP NIH-ES-85-11
Title: Studies of chemical disposition in mammals
Deadline: Approximately Sept. 26

The National Institute of Environmental Health Sciences is soliciting proposals from offerors having the capability for studies of chemical disposition in mammals. The objectives of this project are to obtain detailed disposition data from approximately five studies per year of selected environmental contaminants or model compounds.

Most of these studies will be required in laboratory rats (Fischer 344); however, some studies may be required in other laboratory species. Most studies will address the disposition of organic chemicals or environmental contaminants; however, studies of inorganic compounds may also be requested.

Individual studies may vary in complexity from preliminary investigations of chemical absorption to detailed studies of all phases of chemical disposition and metabolism.

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