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NCI TOLD IT NEEDS OVERVIEW OF BASIC RESEARCH FOR VISIBILITY AND TO PURSUE BREAKTHROUGHS

A new super review committee whose job would be to analyze NCI supported research on fundamental biological processes in order to encourage and speed up development of new relevant areas of research has been proposed to the National Cancer Advisory Board.

Board members seemed inclined to support the suggestion by David Hogness, who offered it in a letter of resignation from the Board written to Director Arthur Upton, NCAB Chairman Jonathan Rhoads and Cancer Panel Chairman Benno Schmidt.

Hogness, professor of biochemistry at Stanford Univ. School of Medicine, said he and others have had difficulty "in obtaining an overall view of the nature and scope of research that NCI supports on basic biological processes relevant to cancer. This difficulty arises in part from the fractionation of that research support among a byzantine array of groups–from the "traditional" programs (a peculiar adjective to bestow upon programs stimulating innovative research) . . . and the

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In Brief

LITTLE RELATION OF CANCER INCIDENCE TO KNOWN CARCINOGENS EXCEPT FOR CIGARETTES, HOLLEB SAYS

NCI RECENTLY held a workshop on control of environmental stress factors in animal carcinogenesis studies. Andrew Monjan, Johns Hopkins, opened his presentation on "Noise as a Stressor in the Laboratory Rodent" with the statement, "Noise may be considered as sound which has no information value for the recipient." That is an observation with which anyone who has attended many meetings at NIH would agree. . . . ARTHUR HOLLEB, American Cancer Society senior vice president for research, responding to statements to the effect that "we are living in a sea of carcinogens," said, "When it comes right down to known carcinogens, we find small relationship of cancer incidence to environmental carcinogens, if you eliminate cigarette smoking" . . . . HARVEY BAKER, chairman of the Commission on Cancer of the American College of Surgeons: "We see too much piecemeal, sloppy (breast cancer) surgery. The attitude is that it is probably disseminated anyway and we'll use drugs to bail you out . . . . Conservative surgery is okay, but it needs to be good surgery" . . . . THREE THOUSAND cases of bladder cancer are being analyzed by NCI epidemiologists to determine if any were connected with use of saccharin. The study will be completed before expiration of the 18-month moratorium imposed by Congress on application of the Delaney amendment. Congress established the moratorium following the outcry against FDA's announcement it would ban saccharin from prepared food products as result of tests which indicated the sweetener was carcinogenic in animals.

NCI DID NOT CAPITALIZE ON "REVOLUTION" IN CHROMOSOME RESEARCH, HOGNESS SAYS

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various branches, laboratories and other programs of the different divisions which distribute contracts and conduct intramural research. This difficulty is compounded by the absence of an effective overview mechanism for surveying the totality of this basic biological research."

Hogness said he can "appreciate some of the administrative and perhaps political constraints" that led to development of this system, but it has "two major defects that need correction. First, it decreases the visibility of the basic biological research that NCI does support, causing many scientists to underestimate that support. I do not think that underestimate can be effectively countered by quoting the number of dollars or fraction of NCI's budget that goes into 'basic research', if only because the budgetary definition of that term is, and I think with good reason, suspect. Certainly such a counter provides little information about the nature and quality of that research.

"Second and of more importance, such a system tends to ignore or otherwise delay participation in new, relevant areas of biological research—sometimes through ignorance caused by lack of contact, and sometimes through program definitions that inevitably accrue."

Hogness offered one example he said "is close to home . . . a revolution in our ability to define the arrangement, regulation and replication of genetic information in higher animals. This revolution has been enormously aided by the advent of the recombinant DNA methodology, but that breakthrough is only one of many that engendered this extraordinary increase in the rate of acquisition of knowledge about the structure and function of animal chromosomes. There is, I submit, no area of fundamental biological investigation that has more general relevance to cancer than this. It cuts across the boundary lines of many traditional programs:

"—Carcinogenesis, where developing knowledge about chromosomes invites new ideas about the mode of action of chemical carcinogens (e.g., do they induce the 'jumping genes' which have recently been uncovered in eukaryotes, to move from one part of the genome to another in a manner analogous to viral transformation?)

"—Immunology, where it is becoming clear that such gene translocations are involved in determining the structure of antibodies.

"—Tumor biology, where we know virtually nothing about the mechanisms regulating chromosome replication.

"—Viral oncology, where the relevance is too obvious to need an example.

"I could go on in this vein at some length," Hogness continued, "but this suffices to make my point, which is that NCI has been remarkably slow to recognize the importance to its general goals of this explosive area of basic research, and consequently did not provide the early leadership and support that I should have expected. A limited awareness has been evident in some programs, as for example viral oncology, but such awareness is often parochial, and in any case fades rapidly as one moves upscale in the administration."

Hogness denied he was making a plea for a new program focused on chromosome research, "although much can be said in favor of that idea. Rather, I use it as a preamble to the presentation of a more general suggestion aimed at alleviating the two defects in the present system. The suggestion centers on an overview mechanism that would also make NCI's interest in basic research more visible and overt. Starting at the level of the Board, I imagine the creation of a Subcommittee on Basic Biological Research (or some such designation) which would, with NCI's help, appoint a group of basic scientists whose job would be to analyze NCI supported research on fundamental biological processes of relevance to cancer, and then to suggest new areas of relevance.

"I imagine this group to consist mostly of younger scientists at the level equivalent to associate professor who would mostly be from outside NCI. This would not be a one shot affair but a continuing group whose composition varied according to single two or three year terms. The group would work in concert with the Board's subcommittee and with the director of NCI through an office of Basic Biological Research."

Hogness said he realized "a letter of resignation is perhaps a peculiar vehicle to press for changes that I have outlined for the first time." He said he was resigning, or more accurately since his term expired in March, had decided not to accept an additional term if offered, because he felt "I cannot contribute significantly" without spending substantial additional time studying Board policy matters, above time required to attend meetings.

Rhoads said he was impressed with the suggestions. "I think we should reflect on it. We might want to approach it either with a Board subcommittee or an ad hoc committee with Board members, basic scientists and outside people."

Schmidt said he would support Hogness' recommendation "unless it would be such a monumental task that it wouldn't be feasible."

DUKE FINISHES FIRST IN OVERALL RATING OF COMPREHENSIVE CENTERS BY NCAB

The National Cancer Advisory Board review of 18 comprehensive cancer centers utilized a system in which each center received a priority score for each of the 10 characteristics which the Board established as criteria to determine if a center is comprehensive.

Adding up the scores for each characteristic, the

INSTITUTION	1. PURPOSE	2. CLINICAL	3. BASIC	4. DETECTION	5. EPI.-STAT	6. CONTROL	7. TRAINING	8. NCP	9. ADMINISTRATION	10. BEMS	TOTAL
1. DUKE UNIVERSITY MEDICAL CENTER	124	211	177	220	213	141	179	142	130	180	1717
2. ROSWELL PARK MEMORIAL INSTITUTE	144	179	168	203	251	239	158	129	150	111	1732
3. MEM. SLOAN-KETTERING CAN. CEN.	115	256	169	177	267	177	202	137	137	108	1745
4. M.D. ANDERSON	143	181	251	237	174	227	174	124	151	114	1776
5. MAYO COMP. CANCER CENTER	155	193	263	291	128	221	264	107	111	186	1919
6. LOS ANGELES CO. - UNIV. SO. CALIF.	150	294	198	210	125	167	175	160	169	277	1925
7. UNIVERSITY OF ALABAMA	126	209	146	359	363	229	154	174	143	124	2027
8. SIDNEY FARBER CANCER CENTER	166	200	152	367	175	186	232	209	198	193	2078
9. FRED HUTCHINSON CAN. RES. CEN.	209	355	212	220	164	179	260	146	203	233	2181
10. JOHN HOPKINS UNIV. ONCOLOG. CEN.	144	159	291	444	208	358	206	146	136	122	2214
11. OHIO ST. UNIV. - COMP. CAN. CEN.	249	248	199	375	311	275	239	177	151	158	2382
12. ILLINOIS CANCER COUNCIL	238	309	381	316	184	273	266	206	241	--*	2414
13. UNIV. WIS. - CLINICAL CAN. CEN.	191	175	355	433	256	226	197	146	288	163	2430
14. COMP. CAN. CEN. - STATE OF FLA.	278	213	403	378	263	217	177	134	207	167	2437
15. FOX CHASE CANCER CENTER	310	277	227	303	177	219	253	197	302	235	2500
16. YALE COMPREHENSIVE CAN. CEN.	313	278	170	360	245	213	338	188	390	175	2670
17. COLORADO REG. CAN. CEN., INC.	253	314	273	316	161	257	305	285	273	243	2680
18. GEORGETOWN/HOWARD UNIV.CAN.CEN.	273	275	341	273	261	276	263	255	260	254	2731

* -- Not Scored

Duke Univ. Comprehensive Cancer Center finished first in the review with a score of 1717, followed by Roswell Park Memorial Institute with 1732.

The chart above was compiled and drawn up by Roswell Park staff.

Highest scoring center for each characteristic:

1. Center must have a stated purpose that includes carrying out of basic and clinical research, training and demonstration of advanced diagnostic and treatment methods relating to cancer—Memorial Sloan-Kettering Cancer Center.

2. High quality interdisciplinary capability in performance of diagnosis and treatment of malignant diseases—Johns Hopkins Univ. Cancer Center.

3. Environment of excellence in basic science which will assure hgihest quality in basic research—Univ. of Alabama Comprehensive Cancer Center.

4. An organized cancer detection program—Memorial Sloan-Kettering.

5. The center must maintain a statistical base for evaluation of results of its program. Records should be developed which will standardize disease classification (EPI-STAT)—USC/Los Angeles County Comprehensive Cancer Center.

6. Leadership in developing community programs involving active participation by members of the medical profession practicing within the area served by the center (cancer control)—Duke.

7. Strong research base (fundamental and applied) and related training programs, with an organizational structure which will provide for coordination of these activities with other facets of the center program—Alabama.

8. Participation in the National Cancer Program by integrating its efforts with the activities of other centers in an integrated nationwide system for the prevention, diagnosis and treatment of cancer. The center must have sufficient autonomy to facilitate this function—Mayo Comprehensive Cancer Center.

9. An administrative structure that will assure maximum efficiency of operation and sound financial practices. The administration should include responsibility for program planning, monitoring and execution, preparation of the budget and control of

expenditures. Administration and management would include staff appointment and space allocation, the intent being that such a center will have the authority to establish the necessary procedures for carrying out its total responsibility—Mayo.

10. Each center must identify an appropriate number of cancer center beds for interdisciplinary clinical research and treatment of inpatients. In general, it is expected that these will be grouped, and that existing inpatient facilities will be committed for this purpose—Roswell Park.

HOW NCI PLANS TO SPEND ITS MONEY IN FY 1980 FOR RESEARCH PROGRAMS

NCI staff included along with the preliminary budget for the 1980 fiscal year a narrative emphasizing projects that would receive support, if the level asked ($1.055 billion) is appropriated. Part of that narrative appeared in the July 7 issue of ***The Cancer Letter;*** the remainder follows:

Clinical Treatment Research

Increase of 16 positions and $19,667,000 over the 1979 estimate of 287 positions and $141,196,000.

Funds are required to purchase a linear accelerator and ancillary equipment for installation in the new facilities of the Radiation Oncology Branch. Additional funds are needed to purchase drugs for clinical trials carried out under NCI auspices. A particular need exists for those drugs used in large quantities or those expensive to produce such as PALA, methotrexate and thymidine.

A need exists for additional research on problems of surgical oncology, such as the evaluation of conservative surgery (e.g., limb salvage in sarcomas), the effects of surgery on the immune response and coagulation, the effects of preoperative therapy on the above, and the evaluation and establishment of postoperative management guidelines in areas such as "second look" surgery.

Additional funds are needed to continue the evolution of the cooperative groups into multimodal status, particularly in the areas of radiotherapy, pathology, and surgery. New sophisticated clinical trials planned in all solid tumors and hematological malignancies will require the support of all modalities and pathology review which are now lacking in many groups. In addition, the newly developed geographic groups require funds for sustenance and further expansion.

Funds are needed for adjuvant trials in soft tissue sarcomas, bladder cancer and lung cancer. Recent experience suggests adjuvant therapy may be efficacious in soft tissue sarcomas and may also lead to more conservative operations with improved results. In bladder cancer, an adjuvant study is needed to evaluate chemotherapy after local radiotherapy and cystectomy of early invasive tumors. In lung cancer, adjuvant trials in locally unresectable tumors are needed.

Additional funds are required for the improved management and analysis of clinical data in order to provide more uniform reportin of phase I and II data. This is important for FDA regulatory requirements, proper drug development decisions, and proper contract and grant monitoring.

New agents designed to improve the total effectiveness of radiation by either strengthening its effect on tumors (radiosensitizers) or sparing radiation's deleterious effects on normal tissues (radioprotectors) are being developed. These compounds now need to be subjected to pharmacologic and clinical evaluation in a variety of combined therapy regimens.

Substantial additional funding is needed for expanded research on the development and evaluation of high LET radiotherapy. This form of therapy has the potential of providing a substantial improvement in the clinical response of a variety of tumors that are resistant or only moderately affected by standard modes of radiotherapy.

Rehabilitation Research

Increase of $550,000 over the 1979 estimate of $5,497,000.

Increases will be used primarily to fund research in the areas of pain control, terminal care and the psychosocial aspects of cancer. These problem areas have caused them to be unpopular areas of research in the past, but their importance to a comprehensive approach to cancer therapy is becoming increasingly evident.

Resource Development—Cancer Centers Support

Increase of three positions and $9,853,000 over 1979 estimate of 25 positions and $67,787,000.

There will be sufficient funds to allow for continuation of ongoing core grants totalling 64 and for the awarding of five new core grants. Two new exploratory grants will be funded for a total of six grants. Two new Cancer Center Patient Data System (CCPDS) grants will be funded for a total of 19 grants.

Research Manpower Development

There is a continuing need to replace scientists who leave cancer investigation. New young scientists are needed in the several medical disciplines important to clinical cancer research and in the many basic disciplines that have integral and important roles in investigating the fundamental nature of cancer. New cancer scientists are needed not only to fill places vacated by individuals leaving cancer research, but also to provide important sources of innovation in cancer research. There is a continuing need to improve and integrate multidisciplinary cancer teaching to undergraduate and graduate students in the curricula of medical and dental schools and similar teaching institutions.

Clinical Education—Increase of one position and $1,621,000 over the 1979 estimate of 7 positions and $10,533,000.

Grants will assist 89 out of a potential 300 medical

and dental schools and other selected institutions in improving comprehensive cancer education programs for undergraduate and graduate medical and dental students and practicing physicians and dentists. An additional nine institutions will be able to provide programs to attract students into careers in oncology and provide them with a specialized education otherwise unavailable in clinical oncology.

National Research Service Awards–institutional fellowships–Increase of one position and $2,216,000 over the 1979 estimate of five positions and $16,809,000. This level will pay 36 additional institutional fellowship awards, and 157 institutions will receive research support.

Individual fellowships–Increase of $739,000 over the 1979 estimate of six positions and $5,603,000. This would provide funding of 425 awards, which is an increase of 49 fellowships over the 1979 estimate.

Research Career Program–Research career awards-research career development awards–increase of $698,000 over the 1979 estimate of two positions and $3,510,000. Eighteen additional awards will be made over the FY 1979 level of 95 grants.

Construction

Increase of $4,044,000 over the 1979 estimate of 15 positions and $17,805,000.

Construction grants and contracts will be used to construct or improve biohazard containment space relative to recombinant DNA research and for the mandatory containment of viral oncogens. In addition, alteration projects for new and existing research programs in environmental and chemical carcinogenesis areas, available facilities need remodeling to meet OSHA safety standards and the Toxic Substances Control Act safety standards so that NCI-sponsored research can be safely accomplished. New construction for cancer research centers will be supported as well as improvement of laboratory facilities on the NIH campus and at the Frederick Cancer Research Center.

Cancer Control

Increase of 13 positions and $9,032,000 over the 1979 estimate of 80 positions and $66,920,000.

There is a need to develop more extensive involvement with community hospitals and other local health organizations in educating physicians and other health professionals about cancer prevention, early diagnosis, treatment, and in developing a "cancer awareness" among practitioners and general surgeons so that they are motivated to detect and diagnose cancer in its earliest possible stages, and then provide the latest and best available treatment and rehabilitation. A field test will be conducted to encourage increased use of cancer staging criteria as developed in the handbook of the American Joint Committee for Cancer Staging and End Results Reporting. There is a substantial variance in the accuracy of cancer staging in the United States, and accurate staging is essential to the selection of appropriate treatment protocols.

State-of-the-art reviews on colorectal cancer will be performed in an effort to define high risk factors and to determine the reliability of basic screening tests and procedures with a view towards applicability in field trials, demonstration projects and other technology transfer methodologies.

There is a need to develop and field test programs that inform exposed workers of the risks involved and the means available to eliminate or minimize those risks. Work will continue with other federal agencies, the health community, labor and industry to plan a comprehensive public awareness and education program to alert present and former shipyard workers, health professionals and other relevant parties, to the possible hazards of asbestos exposure.

Funding will continue for activities in cancer control community-based projects. These activities include such things as smoking cessation projects, projects to identify individuals at high risk to cancer, and education projects to increase awareness of hazards and their avoidance.

A program to identify possible key carcinogens–such as asbestos–which warrant particular control activity will be continued. Resources will be used to establish a network of geographically distributed pathology reference centers to serve as a resource in consultation, continuing education, monitoring quality control, and review of the pathology activities of all other cancer control projects.

CHEMICAL, VIRAL CARCINOGENESIS NOT SEPARATE, SHOULD BE TOGETHER: SHIMKIN

Chemical carcinogenesis is not separate from viral carcinogenesis, Michael Shimkin, professor of community medicine and oncology at the Univ. of California (San Diego) argued in a statement submitted to the Clearinghouse on Environmental Carcinogens.

"This separation was made in 1962 for administrative, programmatic reasons," Shimkin said. "It is even less defensible now, and a reamalgamation is mandatory."

Shimkin's comments were in a written statement on testing for carcinogenic activity presented to the Clearinghouse at its recent plenary session in which the value of NCI's Carcinogenesis Testing Program was debated.

Shimkin, a member of the Clearinghouse, former NCI executive and since 1938 a cancer scientist, also suggested that carcinogenesis research should not be confined to one NCI division; that chemicals cannot be "dichotomized" into carcinogens and non-carcinogens but rather categorized by biological responses; and that carcinogenesis research should be supported at several large centers with continual support to enable scientists to plan lifetime careers in the field.

Shimkin's statement:

"The 15-year experiences in lifetime studies on

rodents exposed to maximum doses of chemicals suspected to have carcinogenic effects are the most systematic sets of data on the largest number of chemicals that have been assembled. The experiences should now be thoroughly analyzed for what they can teach us, and for changes leading to new approaches toward better testing schemes.

"The lessons to be learned from the experiences should begin with an examination of some basic concepts that were attractive 15 years ago, but that no longer can be validly maintained.

"The first is that the universe of chemicals can be dichotomized into carcinogens and non-carcinogens. It is essential, now, to categorize such biological responses by dose, by route, and by the primary target tissues.

"The second is that carcinogens have no threshold. This may or may not be true of ionizing radiation and some radiomimetic chemicals, but is not a sound theoretical model for all chemicals, whether deemed carcinogens or not. Testing, therefore, has to be over a wide range of doses, and hazard for man implied only if the carcinogenic response is elicited at, say, 10 or 20 times the maximum exposure for man.

"Third, that chemical carcinogenesis is separate from viral carcinogenesis. This separation was made in 1962 for administrative, programmatic reasons. It is even less defensible now, and a reamalgamation is mandatory.

"The reports emanating from the carcinogenesis testing program display limited background in carcinogenesis research and pharmacology. They overstress histologic pathology and statistics.

"It needs reiteration that there is a difference between morphological cancer and biological cancer. Cancer kills; lumps found at autopsy at the end of a lifetime, especially in the endocrine organs of the rat, are not necessarily biological cancer, especially in absence of metastases or transplantation tests. The criteria of histologic pathology in cancer were established by relating appearance to outcome. If the outcome is old age only, the appearance under a microscope should be reclassified as something other than a malignant neoplasm.

"It also needs reiteration that there is nothing magical about significance values, especially between groups of dubious comparability. Statistics must make biological sense first, and not be a mathematical exercise.

"The testing of chemicals for carcinogenesis cannot rely on one 'run' on mice and rats It must be a continuum, from the consideration of the chemical structure, in vitro determinations for mutagenesis, short-term in vivo procedures best applicable to the chemical type, and then a life-term study on rodents using a wide range of doses (over a minimun of two orders of magnitude).

"The minimum number of animals, and the minimum amount of special procedures should be the goals. The strains of rodents should be reviewed with the participation of geneticists and virologists. 'Complete' histological examination should be restricted to tissues found abnormal grossly, and to the group exposed to the highest dose level tolerated by the animal. The present 50 males and 50 females of a rat and a mouse strain was an arbitrary standard and requires reanalysis. So does the requirement of sections of all tissues.

"The best results will emanate from investigators and laboratories that know what they are doing, by having done research in carcinogenesis. Such tests will be much less satisfactory if carried out 'by the numbers' by less experienced personnel.

"As in 1960, we need several large centers for research in carcinogenesis, with firm, continual support in which scientists can plan lifetime careers. Carcinogenesis is not susceptible to routine testing, but is a key area of cancer research. Some chemicals to be investigated by one center should be independently also tested by another center, to provide replication and to identify factors leading to differences in results.

"In regards to the Clearinghouse, the reasons for its creation should be examined. Is it a body of scientific review, or an adversary arena? What is its purpose in view of a subcommittee of the National Cancer Advisory Board dealing with the same topic? Is its purpose best achieved by the present subcommittees, or do they further subdivide and separate components that should be integrated?

"Finally, carcinogenesis, environmental and otherwise, cannot be segregated into one division of the National Cancer Institute. It is a main goal of the national effort against cancer. Therefore, interdivisional working groups, including geneticists, biochemists and virologists as well as pathologists and statisticians should be created in order to provide the talent and personnel commensurate with the task."

FOUR UICC-ADMINISTERED PROGRAMS SUPPORT INTERNATIONAL DATA EXCHANGE

The International Union Against Cancer (UICC) has announced its 1978-79 schedule of programs it administers to facilitate international exchange of cancer research information.

- International Cancer Research Technology Transfer grants. Funds are provided by the NCI International Cancer Research Data Bank. Purpose is to promote direct and rapid person to person 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 in order to further the progress of cancer research. Funds are designed to permit investigators of any nationality to visit a research center or centers abroad for a period not exceeding 28 days. The funds cover travel and living expenses. Selection of applicants will be on a continuous basis.

Not open to U.S. government employees.

• International Cancer Research Workshops. Funds are provided by the ICRDB of NCI. To be eligible for support, a workshop must deal with a specific area of cancer research and must have one or more of the following objectives:

—To discuss or demonstrate a newly developed or improved specialized technique or method.

—To discuss methods for overcoming some particular obstacle or for resolving a specific disagreement impeding further progress.

—To discuss and to plan a new approach that might be applied to solve some specific problem.

—To plan the organization and execution of international collaborative studies related to some specific aspect of cancer research.

This program has been established to increase the frequency, speed and efficiency of direct information exchange between cancer investigators of different countries. The workshop should preferably bring together no more than 12 investigators active in the same field of basic, clinical or behavioral research relevant to cancer. The duration of the workshop should not exceed four days.

Funds are intended to cover no less than 30% of the total cost of an approved workshop, up to a maximum of $10,000 each. Applicants must provide a statement that funds from other sources will be available to cover the remaining costs. Closing dates for receipt of applications are Jan. 1, March 1, June 1 and Sept. 1. Not open to U.S. government employees, except that such employees may attend these workshops using funds from other sources.

• American Cancer Society—Eleanor Roosevelt International Cancer Fellowships. Funds are provided by the American Cancer Society. Awards will be granted to experienced investigators who have demonstrated their ability for independent research and who wish to broaden their experience by a period of study at a single institution in another country. Fellowships will be granted only to persons on the staff of universities, teaching hospitals, research laboratories or similar institutions.

Awards will be made to investigators who are devoting themselves either to the experimental or the clinical aspects of cancer research. Duration of fellowships ordinarily will be one year but this may be longer or shorter in special circumstances. The stipend will be based on the current salary of the applicant and the salary of comparable qualifications in the place where the applicant expects to study. An allowance will be made for the cost of travel of the fellow and those dependents who will accompany him from his place of residence to the institution where he will work, and return.

Deadline for applications and supporting documents is Oct. 1. Successful applicants may begin their fellowships at any time during the 12 month period beginning June 1.

• Yamagiwa-Yoshida Memorial International Cancer Study Grants. Funded by the Japan National Committee for the UICC which receives support from the Commemorative Assn. for Japan World Exposition 1970. These grants are designed 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.

The grants are available only for study outside the grantee's country of residence. They will be awarded for periods not exceeding 90 days. Each grantee will receive a travel allowance, a per diem allowance sufficient to cover board, lodging and incidental expenses; no allowance will be paid for dependents. Closing date for receipt of applications is June 30 and Dec. 31.

USDA ASKS CLEARINGHOUSE TO CONSIDER BROADER DATA IN RISK ASSESSMENT

The U.S. Dept. of Agriculture has objected to "interpretation of results and extrapolations of bioassay findings" of carcinogenicity of pesticides when risk assessments do not "take into consideration the registered pattern of use, the dose of chemicals applied in the environment, degradation, period and degree of exposure, metabolism and other factors."

Robert Williamson, representing USDA's Animal & Plant Protection Service, read a statement at a meeting of the Clearinghouse on Environmental Carcinogens relating his agency's concerns.

"Paradoxically, it may appear that several federal agencies regulate chemicals used by other federal agencies with still other federal agencies not in complete agreement with the principles governing the regulating agencies," Williamson said. "The result is nonuniform regulatory policies, disharmony among federal agencies and frustration among the regulators and regulated. In the case of USDA, the result is cancelation or potential cancelation of the registration of many pesticides vital to the production and protection of American agriculture.

"As early as 1975, Secretary of Agriculture Earl Butz recommended to the President the establishment of a Presidential commission to report on the carcinogenic effects of pesticides. Butz sought balanced judgments on the health risks associated with chemical pesticides based on proper criteria developed for the best available scientific evidence.

"In 1976, a USDA representative to the Interagency Collaborative Group on Environmental Carcinogens introduced a resolution calling for the NCI to include an interpretation of the bioassay findings as they may relate to human health risk in their carcinogenicity testing program. The resolution was not unanimously accepted.

"Outside USDA, the Entomological Society of America in a resolution adopted at its 1977 annual meeting similarly urged NCI to include in reports in-

terpretations of bioassay findings as they may relate to risk to humans. It also urged NCI to initiate research designed specifically for the purpose of assessing risk to humans so that regulatory decisions would be based on comprehensive scientific information.

"All of you are aware, I am sure, of HR 12022, a bill introduced by Rep. Wampler to amend the federal Insecticide, Fungicide and Rodenticide Act for the purpose of having the National Academy of Sciences conduct a study concerning standardizing tests for determining potential carcinogenicity in humans of chemicals tested primarily in nonhuman test systems. The proposed study would examine the health and risk assessment policies evolving from or already established in regulations by the Environmental Protection Agency, the Food & Drug Administration, the Occupational Safety & Health Administration, NCI and the Consumer Products Safety Commission. A standard federal cancer policy for regulatory purposes could result.

"The above examples key the concerns of many of us within USDA and others outside the federal structure with the seemingly nonstandardized principles governing the regulation of real or suspect environmental carcinogens. I would urge you as scientists and experts in the subject of carcinogencity to do what you can to provide a logical scientific basis and interpretation relative to suspect chemical carcinogens and risk assessment to humans and the environment."

The USDA pitch demonstrates the quandary in which Clearinghouse members have found themselves: They are pressured on one hand to come up with risk assessment for humans when a compound is found carcinogenic in animals; they are told that they do not have the time and NCI does not have the staff or money to review and consider pertinent information other than data in the bioassay reports.

The result is that the Clearinghouse Data Evaluation/Risk Assessment Subgroup generally will state that a compound is "probably" or "potentially" a carcinogenic risk to humans when the test results show clearly the compound was responsible for an increased tumor incidence in test animals. The degree or manner in which the public is exposed to the suspected compound may be a factor in the Subgroup's findings. But members have felt that "registered pattern of use" and other factors cited by USDA are issues for the regulatory agencies, not NCI. (It is interesting that the USDA statement included NCI with EPA, FDA, OSHA and CPSC as agencies which establish regulations, a notion NCI has tried hard to discourage.)

ACS-ELEANOR ROOSEVELT AWARDS GO TO 20 CANCER INVESTIGATORS

American Cancer Society-Eleanor Roosevelt International Cancer Fellowship grants totaling $281,400 have been awarded to 20 investigators for 1978-79. The awards will enable 11 American investigators to continue their cancer research abroad and will allow nine foreign investigators to work here or in other countries.

The fellows, who were selected by an international committee of cancer researchers, will receive grants ranging from $5,200 to $22,000, depending on the amount of support continued by the fellow's home institution.

The 1978-79 fellows are Rafael Blanco, Chile; John Brown, Stanford; Maimon Cohen, Israel; Michael Darmon, France; Alan Fersht, England; Morris Friedkin, Univ. of California (San Diego); Adolf Graessmann, Germany.

Martin Haas, Israel; Peter Hall, Univ. of California (Irvine); Howard Hosick, Washington State Univ.; Akinori Kojima, Japan; Jay Levy, Univ. of California (San Francisco); Bob Lowenberg, Netherlands; Abraham Loyter, Israel; Dennis Luck, Oberlin; Richard Mchugh, Univ. of Minnesota; Paul Pitha, Johns Hopkins Univ.; Bent Rubine, Denmark.

Ralph Smith, Duke Univ., and Christopher Widnell, Univ. of Pittsburgh.

This year's awards bring the total number of scientists served by the program to 348 since its inception in 1961. The program enables the recipients to work with outstanding scientists in specialized institutions to continue research and teaching responsibilities. The program is funded by the ACS and is administered by the International Union Against Cancer (UICC) in Geneva, Switzerland.

The 1978-79 fellows have a wide range of research interests which include genetics, the inhibition of blood-borne metastases, the epidemiology of cancer, the study of interferon, and a study of human mammary lesions.

The Cancer Letter —*Editor* JERRY D. BOYD

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