For Grants and Contracts

NOTICE OF MAILING CHANGE

☐ Check here if you wish to discontinue receiving this publication ☐ Check here if your address has changed and you wish to continue receiving this publication. Make corrections below and mail this page to: NIH Guide Printing & Reproduction Branch National Institutes of Health Room B4BN08, Building 31 Bethesda, Maryland 20892

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

OFFICIAL BUSINESS
Penalty for Private Use, \$300

The NIH Guide announces scientific initiatives and provides policy and administrative information to individuals and organizations who need to be kept informed of opportunities, requirements, and changes in extramural programs administered by the National Institutes of Health.

Vol. 19, No. 16 April 20, 1990 First Class Mail Postages & Fees Paid PHS/NIH/OD Permit No. G-291

NOTICES

ADVANCED IMAGE PROCESSING METHODS IN ELECTRON MICROSCOPY	1
ELECTRONIC AVAILABILITY OF THE NIH GUIDE FOR GRANTS AND CONTRACTS	1
NOTICES OF AVAILABILITY (RFPs AND RFAs)	
FILARIASIS REPOSITORY - RESEARCH SERVICE (RFP)	4
CLARIFICATION: CONSTRUCTION OF A MOUSE PRODUCTION FACILITY (RFA OD-90-02) National Institutes of Health Index: NATIONAL INSTITUTES OF HEALTH	5
MULTI-SITE TRIALS OF BEHAVIORAL STRATEGIES TO PREVENT SPREAD OF HIV INFECTION (RFA MH-90-06)	5
ONGOING PROGRAM ANNOUNCEMENTS	
UNDERLYING MOLECULAR, CELLULAR AND IMMUNOLOGICAL FACTORS IN AGE-RELATED CANCERS (PA-90-04)	6

NOTICES

ADVANCED IMAGE PROCESSING METHODS IN ELECTRON MICROSCOPY

P.T. 42; K.W. 1013038, 1004000

National Center for Research Resources

The Pittsburgh Supercomputing Center (PSC) is conducting a three-day workshop on the subject of "Advanced Image Processing Methods in Electron Microscopy," June 24-27, 1990. The workshop is funded by a cooperative agreement from the Biomedical Research Technology Program of the National Center for Research Resources, National Institutes of Health (NIH).

This workshop provides a theoretical and practical introduction to advanced methods in light and electron microscopic structure research in cellular and molecular biology. It combines lectures by experts in the field with practical exercises in selected topics. The various aspects of integrating the PSC's Cray YMP/832 in a modular image processing system also will be discussed and the use of the supercomputer for very computer-intensive tasks will be demonstrated. The workshop will utilize the SPIDER and MDPP image processing systems.

These sessions will be conducted by Dr. Joachim Frank of the Wadsworth Center, New York State Department of Health and the School of Health, State University of New York, and by Drs. Ross Smith and Dean Hillman of the New York University Medical Center.

Previous supercomputing experience is not necessary. This three-day workshop will include an optional half-day session on Sunday, June 24, led by PSC staff members. This optional portion will cover VAX/VMS and UNICOS, the Cray version of the AT&T System V Unix operating system.

Travel, meals, and hotel accommodations for U.S. academic participants are supported by the cooperative agreement. Enrollment is limited to 20 individuals. THE DEADLINE FOR SUBMISSION OF APPLICATIONS IS MAY 22, 1990.

For application forms and further information on this workshop or supercomputing resources, write or call:

Nancy Kiser
Biomedical Coordinator
Pittsburgh Supercomputing Center
4400 Fifth Avenue
Pittsburgh, PA 15213
Telephone: (412) 268-5206, or 1-800-221-1641 (outside PA) or
E-mail: kiser@cpwpsca.bitnet

ELECTRONIC AVAILABILITY OF THE NIH GUIDE FOR GRANTS AND CONTRACTS

P.T. 16; K.W. 1004017

National Institutes of Health

For several months, the NIH Guide for Grants and Contracts has been available electronically (E-Guide), on an experimental basis, via BITNET. As of April 1, 1990, more than 140 institutions have designated a representative to receive the E-Guide and then to make it available to interested persons at that institution. Several individuals have provided helpful evaluative comments. Nearly all have been very positive, citing the speed and convenience of the electronic form and the fact that the full requests for applications are transmitted automatically, rather than requiring interested persons to request them specifically. Nevertheless, some have experienced technical difficulties in file management or downloading, and others have pointed out the need for further software development in order to maximize its usefulness. It is clear from the comments we have received that the E-Guide is used in a large variety of ways.

Some individuals have noted problems that result from the format in which the E-Guide is transmitted. One specific suggestion was to incorporate a unique symbol at the beginning or end of each item to facilitate scanning. Another suggestion was to remove headers, footers, and possibly page numbers.

At this time, we would like to know what specific changes in the format would be helpful to you. For example:

- o Do you routinely download and/or print the E-Guide?
- Are page numbers important to you?
- What type of software development would be helpful?
- o Do you still need to receive the hard-copy version of the Guide?

We are considering the possibility of holding an open one-day conference in Bethesda on the E-Guide in the early autumn. The conference would give users a chance to exchange information and would help us to consider appropriate changes in the E-Guide. We would not charge a fee for this conference but probably could not provide travel funds, either.

- o Would such a conference be of interest to you?
- Would you or a representative of your institution be able to attend?

We would appreciate knowing your interest in the proposed conference, as well as answers to the questions posed above, via e-mail or regular mail to:

Ms. Rebecca Duvall or Dr. Janet Newburgh Institutional Liaison Office Building 31, Room 5B31 National Institutes of Health Bethesda, MD 20892 Q2CaNIHCU BITNET:

The following is a listing of institutions currently receiving the NIH Guide electronically. If you are at one of these institutions and wish to receive the E-Guide, you should contact the person identified at your institution. Institutions not listed but that would like to start receiving the E-Guide should notify the Institutional Liaison Office at the above address of their designated person who would be responsible for receiving the E-Guide and then making it available to interested persons within the institution.

NIH GUIDE MAILING LIST BY INSTITUTION (as of March 29, 1990 - 3:15 P.M.)

INSTITUTION	CONTACT PERSON	PHONE
ALFRED UNIV NYS COLLEGE OF CERAMICS AMERICAN PSYCHOLOGICAL ASSOC AMERICAN TYPE CULTURE COLL ARIZONA CANCER CENTER BALL STATE UNIVERSITY BAYLOR COLLEGE OF MEDICINE BOWDOIN COLLEGE COMPUTING CENTER CALIFORNIA STATE UNIVERSITY CARNEGIE MELLON UNIVERSITY CARNEGIE MELLON UNIVERSITY COLUMBIA UNIV COLUMBIA UNIV COLUMBIA UNIV SCHOOL OF SOCIAL WORK COLUMBIA UNIV NEW YORK PSYCHIATRIC INST DARTMOUTH COLLEGE DICKINSON COLLEGE DICKINSON COLLEGE DICKINSON COLLEGE DICKINSON COLLEGE DICKE UNIVERSITY COMPUTER CENTER FLORIDA INSTITUTE OF TECHNOLOGY FLORIDA STATE UNIVERSITY FOX CHASE CANCER CENTER FRED HUTCHINSON CA RES CTR GENBANK GEORGE MASON UNIV GEORGETOWN UNIV MEDICAL CENTER GEORGIA SOUTHWESTERN COLLEGE GLADSTONE FOUNDATION LABS HARVARD UNIVERSITY SCIENCE CENTER HOFSTRA UNIVERSITY COMPUTING FACILITY INDIANA UNIV INDIANA UNIV INDIANA UNIV - PURDUE UNIV IOWA STATE UNIV COMPUTATION CENTER JACKSON LABORATORY JOHN RADCLIFF HOSP, HEADINGTON, OXFORD, UK JOHNS HOPKINS UNIVERSITY	CONTACT PERSON HEINEMAN, ROBERT A. WANDERSMAN, SUZANNE BLAINE, LOIS SOEHNLEN, BARBARA PYLE, JAMES L. WILSON, THOMAS E TRUMPER, PETER K. JOHNSON, BETHANY DUNKLE, SUSAN BUCKLEY, ROBERT J. WALKER, CELIA ISRAEL, BETH H. SCHINKE, STEVEN P. DESIMONE, PHILIP A. DOOLITTLE, MARTHA KIRTLEY, MARY E. LUTZ, ROBERT W. ELCHLEPP, JANE G. GALLO, MICHAEL FREEMAN, MARC ROBINSON, SUE CAHILL, JOANN KRISTOFFERSON, DAVE FISH, MICHAEL STELLPFLUG, MICHAEL HAYNES, DEBORAH DAVIS, VICKI TENEN, DANIEL G. GRANT, ANDREW J. MCCLOUD, JANICE KRATZ, ANN B. PAYNE, CAROLYN JOHNSON, ERIC A. BERNAL. A LOPEZ	PHONE 607-871-2870 202-955-7600 301-881-2600 602-626-6044 317-285-1600 713-798-4915 123-456-7890 213-590-5758 412-268-8746 212-772-4020 303-491-6355 212-854-6851 212-854-6851 212-854-6851 212-854-6851 212-854-6851 212-854-6851 212-854-6851 212-854-6851 212-854-8506 914-365-2000 603-646-8782 717-245-1376 123-456-7890 919-684-4044 407-768-800 904-644-3896 215-728-2496 206-467-4868 415-962-7339 703-323-2000 202-687-1414 912-928-1230 415-826-7500 617-735-5561 516-560-6810 812-855-8913 317-274-8285 515-298-4566 207-288-3371
KANSAS STATE UNIVERSITY	ISENHOUR, TOM	913-532-6011

INSTITUTION	CONTACT PERSON	PHONE
UNIV OF MARYLAND COLL PARK UNIV OF MASSACHUSETTS UNIV OF MEDICINE & DENTISTRY OF NJ UNIV OF MIAMI (MEDICAL CAMPUS) UNIV OF MIAMI INFORMATION RESOURCES UNIV OF MIAMI MED DATA MGMT RESOURCES UNIV OF MIAMI MED DATA MGMT RESOURCES UNIV OF MICHIGAN UNIV OF MISSISSIPPI UNIV OF MISSISSIPPI UNIV OF NEBRASKA - OMAHA UNIV OF NEBRASKA - OMAHA UNIV OF NEBRASKA MED CENTER UNIV OF NEW HAMPSHIRE UNIV OF NEW HAMPSHIRE UNIV OF NORTH CAROLINA UNIV OF NORTH CAROLINA UNIV OF NOTRE DAME COMPUTING CENTER UNIV OF PITTS COMP AND INFO SYS UNIV OF PITTS, NEUROLOGY AND DEC S UNIV OF FOCHESTER UNIV OF S. FLORIDA UNIV OF S. FLORIDA UNIV OF SOUTHERN CALIFORNIA UNIV OF SOUTHERN CALIFORNIA UNIV OF SOUTHERN MISSISSIPPI UNIV OF SOUTHERN MISSISSIPPI UNIV OF SOUTHERN MISSISSIPPI UNIV OF SOUTHERN MISSISSIPPI UNIV OF TEXAS AT EL PASO COMPUTER CTR UNIV OF TEXAS AT EL PASO COMPUTER CTR UNIV OF TEXAS HEALTH SCIENCE CTR UNIV OF TEXAS MED BRANCH UNIV OF TEXAS MED BRANCH UNIV OF TEXAS SW MEDICAL CTR UNIV OF TEXAS SW MEDICAL CTR UNIV OF UTAH UNIV OF UTAH UNIV OF UTAH UNIV OF UTAHSCH OF MED UNIV OF WISCONSIN UNIVERSITY OF ALASKA COMPUTER NETWORK VANDERBILT UNIVERSITY VANDERBILT UNIVERSITY VANDERBILT UNIVERSITY VANDERBILT UNIVERSITY VANDERBILT UNIVERSITY WESTERN ILLINOIS UNIV WESTERN MICHIGAN UNIVERSITY WORCESTER FDN YALE UNIV	GERONIMO, ANNE BURGGREN, MARGARET STEER, DR. ROBERT APATHY, PETER P. NOLEN, DON ALVAREZ, MARINA BEATTIE, ROBERT SCHUMI, WINIFRED DANIEL, MOLLY MONTIEL, OLGA M. THILL, RICHARD SCHLESIGER, NANCY A. BARON, HELEN ST. GEORGE, ART BAKER, DOTTIE SMITH, JANE D. GHOLSON, JANIS WATSON, STUART SCHAFFNER, JAN MCLINDEN, SEAN YOUNGERS, JANE DECRACKER, MERILYNN OGLESBY, CAROLE BALDWIN, ANNE E. DEAN, SCOTT DAVEY, BARBARA GREEN, EVELYN SHRIVER, BRUCE D. COLE, GREGORY S. WOLF, M. E. WOMACK, KAREN HALE, DANIEL J STINSON, E. RAY QUEBBEMAN, KAREN TIMPSON, RICHARD EPSTEIN, CLAY BROWN, ROGER PEASE, GREG R/ CHILDRESS, JOHN MOORE, MARGARET COOL, KENNETH HURD, TOM WILLS, J. J.	PHONE 301-454-3987 413-545-3428 609-757-7762 305-326-6339 305-284-4695 305-547-6285 305-547-6285 312-624-5750 601-232-7474 314-553-5897 402-554-2286 402-559-7456 603-862-2000 505-277-8046 919-966-5625 123-456-7890 219-239-7432 215-898-7293 412-624-7417 412-648-9600 716-275-4031 813-974-2897 904-392-4804 717-961-6190 803-777-2983 213-743-7762 601-266-4119 318-231-5811 615-976-6101 713-792-4689 713-792-2121 409-761-3482 214-688-2258 801-581-7236 801-581-7236 801-581-7236 801-581-6377 907-780-4338 615-322-2631 615-322-2631 615-322-2631
WASHINGTON UNIVERSITY WESTERN ILLINOIS UNIV WESTERN MICHIGAN UNIVERSITY WORCESTER FDN VALE UNIV	ROBIN, KENNETH MYERS, SHIRLEY EMMERT, WIL B. LEE, BARBARA	314-362-0155 309-298-1191 616-387-3670 508-842-8921
TUTE OUTA	ARSHESIAD, MAD V.	200 700 0929

NOTICES OF AVAILABILITY (RFPs AND RFAs)

FILARIASIS REPOSITORY - RESEARCH SERVICE

RFP AVAILABLE: NIH-NIAID-DMID-91-08

P.T. 34; K.W. 0780005, 1002032

National Institute of Allergy and Infectious Diseases

The National Institutes of Health (NIH) has a requirement for a filariasis repository to maintain and supply parasites, infected animals and arthropod intermediate hosts of four selected filarial species to investigators for research purposes.

The Parasitology and Tropical Diseases Branch of the Division of Microbiology and Infectious Diseases of the National Institute of Allergy and Infectious Diseases (NIAID) is soliciting contract proposals from organizations having the capabilities and facilities to maintain all of the life-cycles of Brugia malayi, Brugia pahangi, Dirofilaria immitis, and Acanthocheilonema viteae and to distribute parasites, infected mammals and infected or uninfected intermediate hosts to qualified investigators.

Any contract awarded will be subject to DHHS regulations regarding the use of animal subjects in research.

One contract may be awarded as a result of this solicitation. It is expected that the contract will have a five-year period of performance.

The issuance of the RFP will be on or about April 18, 1990, and proposals will be due by the close of business on June 15, 1990. Any responsible offeror may submit a proposal which will be considered by the government.

To receive a copy of this RFP, please supply this office with a request in writing and two (2) self-addressed mailing labels addressed to:

Mr. Frank M. Fountain Contract Specialist Contract Management Branch, NIAID National Institutes of Health Westwood Building, Room 707 5333 Westbard Avenue Bethesda, MD 20892

This advertisement does not commit the Government to make an award.

CLARIFICATION: CONSTRUCTION OF A MOUSE PRODUCTION FACILITY

RFA: 0D-90-02

P.T. 02, 34; K.W. 1002002, 1014002, 1014006

National Institutes of Health

This Request for Applications (RFA) was published in the NIH Guide for Grants and Contracts on February 16, 1990, Vol. 19, No. 7. This notice is for clarification concerning the requirements for matching funds to be provided by the grantee. The following section replaces that in the original full RFA document.

III. MECHANISM OF SUPPORT

C. Funding Participation. This one-time solicitation based on the Fiscal Year 1990 apppropriation will make available \$10,000,000 for this initiative. Final amount to be determined based on the peer-review evaluation. Up to 75 percent of the allowable costs of the project may be provided, not to exceed \$10,000,000. The matching contributions by the institution may be in cash or in kind, fairly evaluated, including plant and equipment or services throughout the 20-year period of the grant (and including such specialized strains of mice as the Secretary may request for purposes of biomedical research). Amounts provided by any agency of the Federal Government other than the Department of Health and Human Services, and services assisted or subsidized by any such agency, may be included in amount of such matching funds. Prior to the grant award, the applicant must provide an assurance of required institutional contributions, as described above, and that other contributions have been secured to meet any projected costs in excess of the award amount. Requests of less than \$500,000 will not be accepted. No indirect costs will be awarded. No continuation costs will be awarded.

No other parts of the RFA are modified.

MULTI-SITE TRIALS OF BEHAVIORAL STRATEGIES TO PREVENT SPREAD OF HIV INFECTION

RFA AVAILABLE: MH-90-06

P.T. 34; K.W. 0404000, 0715008, 0745027, 0755015, 0411005, 0755018

National Institute of Mental Health

Application Receipt Date: June 20, 1990

The National Institute of Mental Health (NIMH) is requesting applications for a collaborative study to test behavioral interventions to prevent the further spread of HIV infection. The purpose of this collaborative study is to support a coordinated multi-site, multi-population prevention trial by Extramural Research Groups to develop effective AIDS prevention strategies. This collaborative effort will seek the development of a model(s) of prevention that can be applied to diverse populations at risk for HIV infection. Applications are also being sought for a Coordinating Center to provide overall coordination and management for the collaborative study.

Applications for the Extramural Research Groups may be submitted by domestic public or private, nonprofit or for-profit organizations such as universities, colleges, hospitals, laboratories, units of State or local governments, and eligible agencies of the Federal Government. Applications to become an Extramural Research Group will be accepted from foreign institutions only if the applicant provides evidence of unique data or other unique opportunities not available in a U.S. population. Applications for the Coordinating Center will be accepted only from domestic institutions. Women and minorities are encouraged to apply.

Applicants are urged to give attention to the inclusion of minority populations and (where feasible and appropriate) to women in study populations for research into the etiology of diseases, research in behavioral and social sciences, clinical studies of treatment and treatment outcomes, research on the dynamics of health care and its impact on disease, and appropriate interventions for disease prevention and health promotion. If minorities or women are not included in a given study, a clear rationale for their exclusion should be provided.

In fiscal year 1990, a minimum of \$2 million will be available for the entire Cooperative Agreement for Multi-Site Trials of Behavioral Strategies to Prevent Further Spread of HIV Infection. A single award will be made for a Coordinating Center. It is expected that two to five awards will be made to Extramural Research Groups.

To qualify for fiscal year 1990 funding, applications must be submitted for the receipt date of June 20, 1990, and be complete at the time of submission.

Potential applicants should contact the following for consultation concerning submission of proposed projects in response to this request:

Ellen Stover, Ph.D. Director, Office of AIDS Programs Office of the Director Room 17C-06, Parklawn Building Telephone: (301) 443-7281

Anita Eichler Associate Dirctor, Office of AIDS Programs Office of the Director Room 11C-18, Parklawn Building Telephone: (301) 443-6100

Willo Pequegnat, Ph.D.
Program Officer, Office of AIDS Programs
Office of the Director
Room 11C-18, Parklawn Building
Telephone: (301) 443-6100

The mailing address for the above is:

National Institute of Mental Health 5600 Fishers Lane Rockville, MD 20857

ONGOING PROGRAM ANNOUNCEMENTS

<u>UNDERLYING MOLECULAR, CELLULAR AND IMMUNOLOGICAL FACTORS IN AGE-RELATED CANCERS</u>

PA: PA-90-04

P.T. 34; K.W. 0715035, 0710010, 1002004, 1002008, 1002058, 0710070, 0760020

National Cancer Institute National Institute on Aging

I. PURPOSE

The purpose of this program announcement is to stimulate investigator-initiated research that will lead to a better understanding of the various underlying factors, both intrinsic (genetic, molecular and cellular) and extrinsic (epigenetic, immunological, drug-induced, chemical and viral) that affect behavior of cancers in older patients (e.g. over 65) versus younger patients (e.g. under 65). Statistical data show that most malignant tumors are associated with the aging process since cancer incidence and

mortality rates generally increase with age. However it is not known why incidence and mortality rates for certain cancers are greatly increased in older patients when compared with younger patients (e.g. breast, prostate, colorectal and ovarian carcinomas). This program announcement is designed to encourage investigator-initiated research to identify the underlying factors which contribute to the increased incidence and mortality rates associated with certain age-related cancers.

II. BACKGROUND

Current statistics show significant increases in cancer incidence and mortality rates in certain age-related cancers such as carcinomas of the colon, the prostate, the breast, and the ovary. This was based on the review of cancer incidence, survival and mortality statistics (1973-1986) derived from the SEER (Surveillance, Epidemiology, and End Results) Data Base which indicated differences between cancer patients over 65 and those under 65 in these cancers. The current national census documents that persons over 65 comprise 12 percent of the population. With improved health care delivery, this fraction will increase to 14 percent by 2000 AD. The problem of higher cancer mortality rates among patients over 65 thus becomes even more urgent.

Understanding the higher mortality rates in older cancer patients may depend on understanding the possible roles played by the physiological changes with age, the patho-physiology of age-related diseases, and the interactions of many medications consumed by older persons. There is little known about the roles of these factors in the development and progression of cancers in elderly patients. Using animal models, gerontologists reported that genetic instability developed during aging proved damaging to the normal controls of cell growth. Although expression of protooncogenes and responses to growth factors decrease in senescent cells, certain elements, e.g. c-myc, exhibit an age-dependent increased expression to an abnormally high level in some tissues (intestine, kidney, liver and spleen) in aging animals. Analogous molecular alterations have been reported in tumor progression of certain cancers. However, there is not enough information to permit an unbiased evaluation of any correlation between molecular alterations with specific tumor stages, and no comparative study has been done on the molecular and cellular alterations related to senescence with the same events in tumors of the aging patients. For example, it is not known if cellular growth rate, which generally decreases with aging, bears any relationship to the malignant phenotype of a tumor. Moreover, although there are many speculations on relationships of growth rates, invasiveness, and metastatic properties of the tumor to host age, few well-controlled studies in either animal models or patients have been done which relate these processes to host age.

The interaction of the immune system with tumors in elderly patients is also not well understood. Although it has generally been assumed that immune competence decreases with age, the relationships between specific immune deficiencies and tumor growth and progression have yet to be fully analyzed. Older patients pose complex problems for therapy in view of the many physiological changes and chronic illnesses associated with aging. Furthermore, phenotypic expressions of the multi-drug resistance genes, drug metabolizing enzymes and membrane transport properties of tumor cells in elderly cancer patients are not well understood. The development of drug resistance in cancer cells of elderly patients during the course of treatment would constitute a severe problem in chemotherapy.

III. RESEARCH GOALS AND SCOPE

The overall thrust of this program announcement is to stimulate and encourage a broad spectrum of investigator-initiated research to develop basic information relevant to the intrinsic and extrinsic factors contributing to age-related cancers (e.g., breast, prostate, colorectal and ovarian carcinomas). Collaborations among oncologists, molecular biologists, immunologists and gerontologists are greatly encouraged. Innovative and imaginative research proposals are needed to generate and integrate information at the molecular genetic, cellular, immunological and clinical levels. The development of new information on the age-related differences between cancer patients over and under 65 regarding the phenotypic and genotypic properties of tumor cells (such as expression of oncogenes, suppressor genes, growth factors and their receptors) and tumor-host interactions, may contribute to improvements in cancer prevention, diagnosis and treatment.

The Division of Cancer Biology, Diagnosis and Centers Cooperative Human Tissue Network, supported by the National Cancer Institute, provides cancer researchers and potential applicants of this program announcement access to human tissues (depending on their availability) for research. Provision has been made for collection of tumors from the younger patients with tumors that

usually occur in elderly patients. It is, however, the responsibility of the potential applicant to ensure that there is adequate availability of the materials necessary for conduct of the proposed research.

IV. MECHANISM OF SUPPORT

This program will be supported through traditional research grants such as RO1, PO1, and the First Award, R29. Awards will be administered in accordance with the Public Health Service Grant Policy Statement, DHHS Publication No. (OASH) 82-50,000, revised January 1, 1987.

V. ELIGIBILITY

Non-profit and for-profit domestic organizations and institutions, governments and their agencies are eligible to apply.

VI. APPLICATION AND REVIEW PROCEDURES

Applications in response to this announcement should be submitted on form PHS-398, revised 10/88, available in the business or grant office at most academic or research institutions or from the Division of Research Grants, National Institutes of Health, Westwood Building, Room 240, Bethesda, Maryland 20892. Applications may be submitted for a period of five years and will be eligible for competitive renewal. The applicant should indicate clearly in item 2 of the face page that the application is "IN RESPONSE TO PA-90-04, UNDERLYING MOLECULAR, CELLULAR AND IMMUNOLOGICAL FACTORS IN AGE-RELATED CANCERS".

Applications will be accepted in accordance with the published dates for receipt of new applications:

June 1 October 1 February 1

Potential applicants intending to submit an application to this program announcement are encouraged to contact:

Dr. Stringner Sue Yang Division of Cancer Biology, Diagnosis, and Centers National Cancer Institute Executive Plaza North Room 308 6130 Executive Boulevard Rockville, MD 20892 Telephone: (301) 496-8531

All applications in response to this program announcement will be assigned to an Initial Review Group in accordance with the established PHS Referral Guidelines, and reviewed by the usual Public Health Service Peer Review (Study Section) procedures. Review criteria include the significance and originality of research goals and approaches; feasibility of research and adequacy of experimental design; adequacy of available facilities and appropriateness of the requested budget relative to the work proposed. Following the Study Section review, the applications will receive a second-level review by one or more National Advisory Boards or Councils. Funding decisions will be based on the above evaluations and on the availability of funds.

This program is advertised in the NIH Guide For Grants and Contracts and described in the Catalog of Federal Domestic Assistance under Cancer Biology Research, 13.396. Awards will be made under authorization of the Public Health Service Act, Title IV, Section 301(c), (Public Law 78-410, as amended; 42 USC 241; sections 410 and 411, as amended by Public Law 99-158, 42 U.S.C. 285 and 285(a) and administered under PHS grant policies and Federal regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to the intergovernmental review requirements of Executive Order 12372, or Health Systems Agency Review.