

# NIH GUIDE

---

**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 con-  
tinue receiving this publication.  
Make corrections below and  
mail this page to:

NIH Guide  
Distribution Center  
National Institutes of Health  
Room B3BE07, 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 indi-  
viduals and organizations who need to  
be kept informed of opportunities,  
requirements, and changes in extra-  
mural programs administered by the  
National Institutes of Health.

Third-Class Mail  
Postage & Fees Paid  
PHS/NIH/OD  
Permit No. G-291

VOL. 16, NO. 34 - OCTOBER 16, 1987  
SPECIAL CENTENNIAL EDITION





SPECIAL CENTENNIAL EDITION

Vol. 16, No. 34, October 16, 1987

NOTICES

NOTICE OF MEETING--THE HEALTH OF BIOMEDICAL RESEARCH INSTITUTIONS.....1  
National Institutes of Health  
Index: MEETINGS

NIH REGIONAL WORKSHOPS ON IMPLEMENTATION OF THE PHS POLICY  
ON HUMANE CARE AND USE OF LABORATORY ANIMALS  
National Institutes of Health  
Index: NATIONAL INSTITUTES OF HEALTH.....1  
ANIMALS

DATED ANNOUNCEMENTS (RFAs AND RFPs AVAILABLE)

A CLINICAL TRIAL FOR THE USE OF MONOCLONAL ANTIBODIES IN THE  
PREVENTION OF KIDNEY GRAFT REJECTION (RFP).....2  
National Institute of Allergy and Infectious Diseases  
Index: ALLERGY AND INFECTIOUS DISEASES

CENTERS FOR THE STUDY OF CARDIOVASCULAR DISEASE IN AMERICAN INDIANS (RFA)...3  
National Heart, Lung, and Blood Institute  
Index: HEART, LUNG, AND BLOOD

PROGRAMS OF EXCELLENCE FOR BASIC RESEARCH ON AIDS (RFA).....3  
National Institute of Allergy and Infectious Diseases  
Index: ALLERGY AND INFECTIOUS DISEASES

RESEARCH CENTERS ON ORAL HEALTH IN AGING (RFA).....5  
National Institute of Dental Research  
National Institute on Aging  
Veterans Administration  
Index: DENTAL RESEARCH  
AGING

CHARACTERIZATION OF THE GENOMES OF HUMANS AND MODEL ORGANISMS (RFA).....6  
National Institute of General Medical Sciences  
Index: GENERAL MEDICAL SCIENCES

ONGOING PROGRAM ANNOUNCEMENTS

ATHEROGENESIS AND AGING (PA).....9  
National Heart, Lung, and Blood Institute  
National Institute on Aging  
Index: HEART, LUNG, AND BLOOD  
AGING

## NOTICES

### NOTICE OF MEETING--THE HEALTH OF BIOMEDICAL RESEARCH INSTITUTIONS

P.T. 42; K.W. 1014002, 0710030

National Institutes of Health

Notice is hereby given that the National Institutes of Health (NIH) will hold the third and fourth meetings of a series of seven regional public briefing meetings to be conducted under the auspices of the Advisory Committee to the Director, NIH, on "The Health of Biomedical Research Institutions." The purpose of the meetings is two-fold:

- 1 to provide current information concerning the activities of the NIH by describing the broad political context in which the NIH operates, discussing the Federal budget process as it affects the formulation of the NIH budget, demonstrating recent trends in the funding of NIH programs, discussing the broad strategies adopted by NIH to meet emerging needs, and describing new NIH policies and programs designed to achieve program objectives; and
- 2 to solicit through public testimony the views of biomedical researchers, university faculty and administrators, representatives of professional societies, and other interested parties concerning the impact of the Federal system of sponsored research on the health of biomedical research institutions.

The third meeting will be held on Thursday, December 3, 1987 from 8:30 a.m. to 5:00 p.m. at New York University, New York. The fourth will be held on December 4, 1987 from 8:30 a.m. to 5:00 p.m. at the Forsyth Dental Center, Boston, Massachusetts. Notice of the time and location of additional meetings will be published later.

Following presentations by the Director, NIH, and his senior staff, a panel comprised of members of the Advisory Committee to the Director, NIH, representatives of NIH national advisory councils, and senior NIH staff will spend the remainder of the day receiving testimony from public witnesses. Each witness will be limited to a maximum of ten minutes. Attendance and the number of presentations will be limited to the time and space available. Consequently, all individuals wishing to attend or to present a statement at this public meeting should notify, in writing:

Jay Moskowitz, Ph.D.  
Executive Secretary  
Advisory Committee to the Director, NIH  
National Institutes of Health  
Shannon Building, Room 137  
Bethesda, MD 20892  
Telephone: (301) 496-3152

Those planning to make a presentation should file a one-page summary of their remarks with Dr. Moskowitz by October 30, 1987; a copy of the full text of these remarks should be submitted for the record at the time of the meeting. Please indicate which of the two meetings you plan to attend. Additional information may be obtained by calling:

Mr. Edward Lynch  
Division of Program Analysis  
Office of Program Planning and Evaluation  
National Institutes of Health  
Shannon Building, Room 235  
Bethesda, MD 20892  
Telephone: (301) 496-1454

### NIH REGIONAL WORKSHOPS ON IMPLEMENTATION OF THE PHS POLICY ON HUMANE CARE AND USE OF LABORATORY ANIMALS

P.T. 42; K.W. 1014002, 0201011, 1014003

National Institutes of Health

The National Institutes of Health, Office for Protection from Research Risks, is continuing to sponsor a series of workshops in implementing the Public Health Service Policy on the Humane Care and Use of Laboratory Animals. The workshops are open to institutional administrators, members of animal care and

use committees, laboratory animal veterinarians, investigators and other institutional staff who have responsibility for high-quality management of sound institutional animal care and use programs.

Date: December 10-11, 1987

Location: Charlottesville, Virginia

Contact:

Miss Kelly Crank  
University of Virginia  
Medical School, Box 325  
Charlottesville, Virginia 22908  
Telephone: (804) 924-960909

Date: January 28-29, 1988

Location: Albuquerque, New Mexico

Contact:

Ms. Rynda Gibbs  
University of New Mexico School of Medicine  
Continuing Medical Education  
815 Vassar N.E.  
Albuquerque, New Mexico 87131  
Telephone: (505) 277-3942

Other workshops are being planned and will be announced in future issues of the NIH Guide for Grants and Contracts.

For additional information contact:

Ms. Roberta Garfinkle  
Executive Assistant for Animal Welfare Education  
National Institutes of Health  
Office of Protection from Research Risks  
Building 31, Room 4B09  
Bethesda, Maryland 20892

DATED ANNOUNCEMENTS (RFAs AND RFPs AVAILABLE)

A CLINICAL TRIAL FOR THE USE OF MONOCLONAL ANTIBODIES IN THE PREVENTION OF KIDNEY GRAFT REJECTION

RFP AVAILABLE: NIH-NIAID-IAIDP-88-13

P.T. 34; K.W. 0755015, 0745065, 0745040, 0710125, 0760045

National Institute of Allergy and Infectious Diseases

The Genetics and Transplantation Biology Branch of the Immunology, Allergy and Immunologic Diseases Program of the National Institute of Allergy and Infectious Diseases (NIAID) is soliciting contract proposals from organizations having the capabilities and facilities for conducting a clinical trial in the prevention of kidney graft rejection.

Offerors should have demonstrated experience in kidney transplantation and immunotherapeutic technologies as well as experience in the conduct of clinical trials. The ability to collect and analyze data relating to the efficacy of therapeutic regimens is also required.

This RFP was previously announced in the NIH Guide Vol. 16 No. 28, August 14, 1987. Its original release date has been rescheduled to that shown below.

RFP-NIAID-IAIDP-88-13 will be available on or about November 2, 1987. Responses are due by January 25, 1988. This NIAID sponsored project will take approximately four years to complete. Two awards are anticipated. Any responsible organization may submit a proposal which will be considered by the Government. To receive a copy of this RFP, please supply the office listed below with two self-addressed mailing labels.

Telephone inquiries will not be honored and all inquiries must be written and addressed to the office listed below.

Your request should be mailed to:

Ms. Rosemary L. McCabe  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
5333 Westwood Building, Room 707  
Bethesda, Maryland 20892

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

CENTERS FOR THE STUDY OF CARDIOVASCULAR DISEASE IN AMERICAN INDIANS

RFA AVAILABLE: 88-HL-07-P

P.T. 04, FE; K.W. 0715040, 0411005

National Heart, Lung, and Blood Institute

Application Receipt Date: February 18, 1988

The Clinical and Genetic Epidemiology Branch of the Division of Epidemiology and Clinical Applications, National Heart, Lung, and Blood Institute (NHLBI) announces the availability of a Request for Applications (RFA, Cooperative Agreement) on the above subject. Copies of the RFA will be available October 9, 1987 from staff of the NHLBI. Note that awards will not be made to foreign institutions.

This program will support epidemiologic investigators and supporting staff to collaboratively plan and execute a study to assess the morbidity and mortality attributable to cardiovascular disease and the distribution of cardiovascular disease risk factors among American Indians. A major aim of the study is to employ a common protocol to identify and describe cardiovascular disease and its associated risk factors in Indian populations from different geographic locations to acquire data from Indians of different migratory origin or linguistic groups. Coordinating center, core laboratory and electrocardiogram reading center functions will be included within one or more clinical study centers. Interested institutions may request copies of the RFA. It is anticipated that up to four grants will be awarded.

Requests for copies of the RFA should be addressed to:

Peter J. Savage, M.D  
Clinical and Genetic Epidemiology Branch  
Division of Epidemiology and Clinical Applications  
National Heart, Lung and Blood Institute  
Federal Building, Room 300  
7550 Wisconsin Ave.  
Bethesda, MD 20897  
Telephone: (301) 496-4333

PROGRAMS OF EXCELLENCE FOR BASIC RESEARCH ON AIDS

RFA AVAILABLE: 88-AI-01

P.T. 34; K.W. 0715120, 0715125, 0710070, 1002045, 1002004, 1002008

National Institute of Allergy and Infectious Diseases

Letter of Intent Date: November 15, 1987  
Application Receipt Date: February 17, 1988

The National Institute of Allergy and Infectious Diseases (NIAID) invites applications for the establishment of "PROGRAMS OF EXCELLENCE FOR BASIC RESEARCH ON AIDS" (PEBRA).

**PURPOSE**

The purpose of this RFA is to support basic research programs addressing questions on the pathogenesis of AIDS and its related opportunistic infections by using approaches from immunology, virology, cell biology or molecular biology. By increased understanding in these areas, more rational studies for the diagnosis, treatment and prevention of AIDS can also be designed. The PEBRA Program will be supported through the Cooperative Agreement assistance mechanism to encourage scientists and physicians with interests in AIDS research to participate in solving problems related to AIDS.

As envisioned, PEBRAS should have the capacity to generate new approaches and strategies to answer key questions leading to improved understanding of the processes of the immune system and infectious disease in AIDS. PEBRAS can be focused in one area such as virology, immunology or infectious diseases associated with AIDS, or they may be multidisciplinary in composition. In addition, the PEBRA must facilitate creative interactive research activities between members of the group and not merely be a collection of individual R01 applications. The degree of interaction can be, but should not be limited to: a) multi disciplinary research efforts; b) sharing of facilities and equipment; and c) seminars which involve all Project Leaders of a PEBRA.

The NIAID has a broadly based contract and collaborative research portfolio related to virology and immunology. In addition, the AIDS Program has initiated several cooperative multidisciplinary, multi-institutional research programs for AIDS. THE NATIONAL COOPERATIVE DRUG DISCOVERY GROUPS FOR THE TREATMENT OF AIDS, THE NATIONAL VACCINE DEVELOPMENT GROUPS and THE AIDS CLINICAL STUDIES GROUPS are examples of these Cooperative Agreement Programs. AIDS Program staff will interact with PEBRAS and other Cooperative Agreement programs to assist in the development of their research programs as they relate to AIDS and to facilitate the interactions between these Cooperative Agreement Programs.

#### MECHANISM OF SUPPORT

The PROGRAMS OF EXCELLENCE FOR BASIC RESEARCH ON AIDS (PEBRA) will enable scientists in various fields of research to interact, with NIAID Support, as a unit, to carry out the basic research essential for the realization of the PEBRA objectives. PEBRA could be composed of scientists from academic, nonprofit and for-profit research institutions, and commercial organizations.

Grant awards will be made as COOPERATIVE AGREEMENTS. Assistance via Cooperative Agreement differs from the research grant in that the Government component (NIAID) awarding the Cooperative Agreement anticipates substantial involvement during performance of the award. There is no intent, real or implied, for NIH staff to direct group activities or to limit the freedom of investigators. The interaction of academic research institutions with NIAID staff is expected to assist and facilitate the efforts within the PEBRA.

NIAID intends to make six to eight awards as a result of this RFA. The starting date for the initial annual period will be on or before September 1988.

When the applicant institution is outside the United States, awards will be limited to three years. Domestic applicants, including those with foreign components, may request funding for up to five years.

#### METHOD OF APPLYING

The regular research grant application Form PHS-398 (rev. 9/86) must be used in applying. These forms are available at most institutional business offices or from the Office of Grants Inquiries, Division of Research Grants, National Institutes of Health, 5333 Westbard Avenue, Bethesda, Maryland 20892. Affix the RFA label provided in the revised PHS-398. Failure to do so could result in delayed processing of the application such that it may not reach the review committee in time for review.

#### INQUIRIES

Inquiries regarding the full RFA may be addressed to Dr. Padarathsingh.

Martin Padarathsingh, Ph.D.  
Chief, Pathogenesis Branch  
AIDS Program  
NIAID, NIH  
Westwood Building, Room 7A-04  
Bethesda, MD 20892

## RESEARCH CENTERS ON ORAL HEALTH IN AGING

RFA AVAILABLE: 88-DE-01

P.T. 04, CC; K.W. 0710010, 0745050, 0710030, 1002027, 0710070, 0765035, 0755030

National Institute of Dental Research  
National Institute on Aging  
Veterans Administration

Application Receipt Date: March 15, 1988

The National Institute of Dental Research (NIDR), the National Institute on Aging (NIA) and the Veterans Administration (VA), as part of their expanding programs of research on the oral health of older Americans, invite applications for the support of research centers on oral health in aging. Each center program should consist of interrelated, multidisciplinary studies of oral health in relation to aging. The application must represent a consortium that includes a Veterans Administration institution and one or more non-VA academic and/or research institutions. Applicants should also indicate that they are prepared to submit an application for a research training program on oral health in aging during the first year of the grant award.

### BACKGROUND INFORMATION

Although older individuals often have severe oral health needs, there is little information concerning the magnitude and range of these problems. Moreover, almost no research is directed towards obtaining such information or developing techniques and programs that specifically address oral health needs.

The population of older people is large and growing larger. In recognition of those epidemiological realities, the research plans of the National Institute on Aging and the National Institute of Dental Research have emphasized the importance of research on oral health in aging. Such research is, by nature, complex and multifaceted because it must reflect the variable physiologic state of aging persons, including the increased probability of systemic disease or impairment and increased use of medications.

The Veterans Administration provides medical and dental services to a large number of aging veterans, many of whom reside at or visit VA hospitals and specialized facilities, such as Geriatric Research, Education, and Clinical Centers (GRECCS). While the NIDR and the NIA encourage the submission of individual grant applications in areas of gerontologic oral health research, this RFA is specifically intended to encourage collaborative efforts, making use of the unique resources of the VA such as patient populations, databases, research instrumentation, and research and support personnel. Because VA patients are predominantly male, applicants planning research using VA patient volunteers should describe how information relevant to the oral health problems of older women will be obtained. In addition, applicants are urged to include members of minority groups in study populations, with appropriate attention to research design and sample size. If minorities and women are not included in a given study, a clear rationale for their exclusion should be provided.

A major factor in evaluating applications will be the extent to which the center program will promote advances leading to improvements in the oral health of older Americans which could not be achieved or which would be achieved more slowly, if the component projects were funded separately.

The research emphasis of individual proposals may differ depending on the expertise, resources, and interests of the applicant group. To be responsive to the intent of this RFA, the proposal must be focused on the special problems of oral health in aging, including basic and clinical research. However, unless clearly a part of a research study, clinical treatment is not to be included. In addition, each proposal should indicate the intent to submit an application for a postdoctoral research training program on oral health in aging.

### ELIGIBILITY

To be eligible for a center grant under this program, the potential applicant institution must have ongoing, independently supported research and must propose new research in the area of oral health in aging.

## RESEARCH OBJECTIVES

Information about research objectives can be found in the full RFA as well as in the publication, "A Research Agenda on Oral Health in the Elderly" which will be mailed to individuals requesting the full RFA.

## FUNDING MECHANISM

The administrative and funding mechanism will be the research center grant (P50). Each center program is expected to include several related but multidisciplinary projects. First year budgets will be limited to \$500,000 in direct costs. It is anticipated that the NIDR, the NIA, and the VA will make several awards under this centers' program.

## STAFF CONTACT

Requests for copies of the full RFA should be addressed to:

Dr. Marie U. Nylén, Director  
Extramural Program  
National Institute of Dental Research  
Westwood Building, Room 503  
National Institutes of Health  
Bethesda, MD 20892-4500  
Telephone: (301) 496-7723

The RFA label available in the 9/86 revision of Application Form 398 must be affixed to the bottom of the face page. Failure to use this label could result in delayed processing of your application such that it may not reach the review committee in time for review.

## CHARACTERIZATION OF THE GENOMES OF HUMANS AND MODEL ORGANISMS

RFA AVAILABLE: 88-GM-01

P.T. 34; K.W. 1002008, 1002019, 0755045

National Institute of General Medical Sciences

Application Receipt Date: January 14, 1988

The National Institute of General Medical Sciences (NIGMS) invites research grant applications for support of research projects directed toward characterizing the human genome or the genomes of model organisms. The objective is to stimulate research that will improve our ability to analyze the entire genome of an organism, with the eventual goal of applying this knowledge to the analysis of the human genome and to the prevention, diagnosis, and treatment of human disorders. It is possible that special funds will be available to support competitive research programs that further these goals. Potential applicants are strongly advised to contact NIGMS staff before submitting applications for support.

## BACKGROUND

The National Institutes of Health (NIH) recently issued two program announcements entitled "New Approaches to the Analysis of Complex Genomes" and "Computer-based Representation and Analysis of Molecular Biology Data," (vol. 16, no. 18 - May 29, 1987 - pp. 9, 11). These announcements described a number of research topics related to genomic analysis that are of continuing interest to the NIH. They are referred to, in conjunction with the present Request for Applications, to re-emphasize the fact that all of the institutes at NIH, as well as NIGMS, will continue to encourage and support research on the topics described in these broad NIH announcements. Such topics include the development of methodology and technology and the analysis of both prokaryotic and eukaryotic genomes. The possibility that targeted funds may become available prompts this Request for Applications, which describes two focused research initiatives of special interest to NIGMS.

Among the tools which will be necessary for study of the human genome are a genetic map and physical maps. Most scientists now agree that a prerequisite to any major initiative to determine the complete sequence of human DNA is construction of such maps. Identification of polymorphic markers frequently spaced, perhaps every one to five centiMorgans (cM) on the human genetic map, would greatly facilitate creation of physical maps, isolation of human genes, development of tools for the diagnosis of genetic disorders, research into the organization of the human genome and, ultimately, determination of the DNA sequence of the human organism. Another crucial step in the sequence analysis



of the human genome is the development of physical maps of human DNA, including both restriction maps based on the location of recognition sites for infrequently cutting restriction enzymes and a complete set of ordered, overlapping clones of human DNA.

It is also true that much of our current knowledge of genome organization and function has come from studies of model organisms. Studies in these areas, employing a number of such model organisms, are underway with support from several organizations and investigators are reminded that research on many organisms is encouraged under the broad NIH Program Announcements. NIGMS regards the genetic and physical maps, as well as the genomic DNA sequences, of several widely used model organisms--yeast, Drosophila, and mouse--to be particularly valuable research tools for understanding the organization of eukaryotic genomes, including that of the human. Research utilizing physical maps and the DNA sequences of the genomes of these, and other, model organisms will facilitate characterization of the human genome. In addition, the improvements in methodology and technology generated by such research would have many important applications.

#### RESEARCH GOALS

This purpose of this Request for Applications is to encourage investigators to submit applications focused on the topics described below:

##### o Genetic and Physical Maps of the Human Genome

The first objective of this project is to complete, as rapidly as possible, the construction of a high resolution human genetic map. Such an effort is already well under way; NIGMS support is intended to speed and facilitate the mapping effort. Applications should focus on the goal of isolating and mapping restriction fragment length polymorphisms (RFLPs) approximately every one to five cM on the human genetic map.

The second objective is to begin development of physical maps of human DNA. Applications should focus on one or more of the following: (a) the isolation of a set of ordered, overlapping clones, (b) development of a restriction map from chromosomal segments or entire chromosomes, (c) the improvement of techniques for developing these maps.

Because both of these objective represent large and complex initiatives, it is expected that several laboratories will be involved. Awardees will be expected to share information and work closely with other scientists involved in constructing the human genetic map and to make all materials derived from this work available to the scientific community and to the relevant repositories and data collections.

##### o Mapping and Sequencing of the Genomes of Model Organisms

Research projects which will lead to the characterization of the genomes of several model organisms are under way. Construction of the genetic and physical maps and determination of the sequences of the DNA of three of these organisms--yeast, Drosophila, and mouse--will facilitate analysis of genomes. Applications in these areas are actively being sought and collaborative projects involving several scientists are encouraged. Applications in response to this aspect of the RFA should focus on the following objectives:

- o Expansion of the genetic map, refinement of the physical map, and linkage of the genetic and physical maps of yeast, Drosophila, and mouse;
- o Determination of the DNA sequence of chromosomal segments, complete chromosomes, or the entire genomes of yeast, Drosophila, and mouse.

Utilization of DNA sequence data for the analysis and characterization of genomic information is encouraged as part of all of these proposed mapping and sequencing projects. Research to be supported under this part of the RFA is focused on these four model organisms because it is expected that progress can be made rapidly and will be of considerable benefit to the program for characterizing the human genome as well as to other basic science projects. Again, investigators are reminded that research having these objectives but using other organisms is encouraged under the broad NIH Program Announcements.

As in the case of research projects dealing with the human genome, awardees studying model organisms will be expected to share information with other scientists involved in related projects and to make all materials derived from this work available to the scientific community and to the relevant repositories and data bases.

## MECHANISM OF SUPPORT

Support for this program will be through research grants, including project grants (R01) and program projects (P01). Applications submitted by collaborating investigators from more than one institution can be supported by consortium arrangements. Policies that govern research grant programs of the NIH apply to this program.

The total amount of support of grants under this RFA is contingent upon the appropriation of funds for this purpose. The number of awards will be determined by the merit of the proposals and by their relevance to program goals, as well as by the availability of funds. It is anticipated that in fiscal year 1988 up to five million dollars will be allocated to the research initiatives described in this RFA. This amount may be increased if a large number of highly meritorious applications are received and if funds are available.

## APPLICATION AND REVIEW PROCEDURES

Prior to initial scientific merit review, a triage mechanism will be employed to screen out applications that are clearly noncompetitive or nonresponsive to the RFA. Such applications will be returned to the applicant. Applications will be evaluated initially by one or more special NIGMS peer review committees for scientific and technical merit. A second review will be conducted by the National Advisory General Medical Sciences Council. Review criteria include the following:

- o Overall scientific merit of the research;
- o Potential value of the research for furthering the goals outlined in this Request for Applications;
- o Feasibility of the research and adequacy of the experimental design;
- o Training, experience, research competence, and dedication of the investigator(s);
- o Adequacy of available facilities;
- o Provisions for the protection of human subjects and the humane care of animals; and
- o Appropriateness of the requested budget for the work proposed.

Applications should be submitted using the new form PHS 398 (rev. 9/86). The RFA label available in the revised application kit must be affixed to the bottom of the face page. Failure to use this label could result in delayed processing of the application such that it may not reach the review committee in time. Application kits are available in the business or grants office at most academic or research institutions, or from the Division of Research Grants, National Institutes of Health. Applications will be accepted in accordance with the following schedule:

## TIMETABLE

Receipt Date:	January 14, 1988
IRG Review:	April/May
Council Review:	September
Earliest Funding Date:	End of September

It is essential that applicants type "CHARACTERIZATION OF THE GENOMES OF HUMANS AND MODEL SYSTEMS" and the RFA number 88-GM-01 on line 2 on the face page of the application form. The original and four copies of the application should be submitted to the following office:

Grant Application Receipt Office  
Division of Research Grants  
National Institutes of Health  
Westwood Building, Room 240  
Bethesda, Maryland 20892\*\*

To expedite the review process, submit two copies of your application directly to:

Office of Review Activities  
National Institute of General Medical Sciences  
Westwood Building, Room 949  
National Institutes of Health  
Bethesda, Maryland 20892

Funding decisions will be based on recommendations of the initial review groups and the National Advisory General Medical Sciences Council regarding scientific merit and program relevance.

It is strongly recommended, but not required, that potential applicants contact NIGMS staff to discuss research objectives. Each prospective applicant is strongly advised to submit, by Dec. 1, a letter of intent which includes a descriptive title of the proposed research and names of key members of the program. This letter is requested to provide NIH staff with an indication of the number and scope of applications to be reviewed. It does not commit the prospective applicant to submit an application nor is it a requirement for submission of an application. For more information, applicants may contact:

Dr. Mark Guyer or Dr. Irene Eckstrand  
National Institute of General Medical Sciences  
National Institutes of Health  
Westwood Building, Room 918  
Bethesda, MD 20892  
Telephone: (301) 496-7137

### ONGOING PROGRAM ANNOUNCEMENTS

#### ATHEROGENESIS AND AGING

P.T. 34; K.W. 0715040, 0710010, 0710030

National Heart, Lung, and Blood Institute  
National Institute on Aging

#### BACKGROUND

Epidemiological studies have established that aging is a well-documented risk factor for atherosclerosis. Certain of the risk factors felt to be important in the development of atherosclerosis such as adiposity, hypertension, hyperglycemia, and hyperlipidemia occur predominantly in older individuals. These areas are currently under intensive investigation. It remains to be determined whether certain physiological processes are altered during the course of aging which precipitate conditions necessary for progression of the disease. Examples of age-related changes which might influence the development or healing of atherosclerosis occur in the areas of immune function, lipid metabolism, vascular ultrastructure and hormone production. Recently there have become available animal resources that might be utilized to study and document the physical and biochemical changes due to age, some of which are appropriate for induction of atherosclerosis. These include models such as (1) the 300 aged nonhuman primates (primarily *M. mulatta*, but also *M. nemestrina*) at five regional primate centers supported by the National Institute on Aging; (2) the Aging Cell Culture Repository (human skin, muscle, endothelial cells from aging normal, diseased-progeric, familial-Alzheimer subjects, and cultured cells of animal origin); (3) hamster colonies; (4) hybrid mouse and rat colonies.

#### RESEARCH GOALS AND SCOPE

Use of biological systems, animal, human, or in vitro are urged where age-related changes and their relationship to atherosclerosis can be studied. Examples of research topics include:

Immune response capacity and the contribution of immune complexes to the injury of the endothelium of the arterial wall.

Role of nonenzymatic glycosylation of proteins such as collagen in explaining the severity of atherosclerosis in diabetics and in aging individuals.

Development of complicated atherosclerotic plaques and age related changes in platelet adhesiveness, coagulation, thrombosis and thrombolysis.

Altered arterial wall adaptive processes to flow and transport phenomena, hormone levels, eicosanoid metabolism, lipoprotein transport, proteoglycan metabolism in response to age-related changes in humans/animals.

Intrinsic differences between young and old individuals in metabolism of lipids and lipoproteins, and progression/ regression of atherosclerosis.

Vascular repair (healing) of atherosclerotic plaque.

The research areas listed above are only illustrative and are not intended to limit the creativity of applicants in designing experiments which will 1) determine whether the response to atherogenic stimuli or treatment is affected by age, 2) to identify age-related changes in metabolic or structural processes which might affect the development of regression of atherosclerosis.

#### MECHANISM OF SUPPORT

Applications may be submitted for the conventional NIH grant support mechanisms, including the individual research project grant, Clinical Investigator, First Independent Research Support and Transition (FIRST), Research Career Development, and Physician Scientist Awards. Clinical Trials mechanism are excluded.

#### APPLICATION AND SUBMISSION REVIEW

The deadline dates for new applications are February 1, June 1, and October 1. The deadlines for competing renewals of Research Project (R01) grants are March 1, July 1, and November 1. All applications will be assigned by the DRG for review according to the NIH process for regular research grant applications. Secondary review will be by the National Heart, Lung, and Blood Advisory Council or the National Institute on Aging Advisory Council. Applicants recommended for approval will compete for available funds with all other approved applications assigned to the NHLBI or NIA. However, since the Institutes have identified this research area to be of particular program interest, applications responsive to this announcement will be brought to the special attention of the Councils. In order to identify the application as a response to this program announcement, include on the application face page: P.A. "ATHEROGENESIS AND AGING" as well as the exact title of your project.

The original and four copies of the application should be mailed to:  
Division of Research Grants  
National Institutes of Health  
Westwood Building, Room 240  
Bethesda, Maryland 20892\*\*

An additional copy of the application should be mailed to:

Edwin C. Gangloff, Ph.D.  
National Heart, Lung,  
and Blood Institute  
Bethesda, Maryland 20892  
Telephone: (301) 496-1978

AND

Lot B. Page, M.D.  
National Institute  
on Aging  
Bethesda, Maryland  
20892  
Telephone: (301)  
496-1033

Requests for additional information or questions regarding this program may be directed to either of the above.

\*The programs of the Division of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute and National Institute on Aging, are identified in the catalog of Federal Domestic Assistance, number 13.837 and 13.866. Awards will be made under the authority of the Public Health Service Act, Section 301 (42 USC 241) and administered under PHS grant policies and Federal regulations, most specifically 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to the intergovernmental review requirements of Executive Order 12372, or to review by a Health Systems Agency.

\*\*THE MAILING ADDRESS GIVEN FOR SENDING APPLICATIONS TO THE DIVISION OF RESEARCH GRANTS IS THE CENTRAL MAILING ADDRESS FOR THE NATIONAL INSTITUTES OF HEALTH. APPLICANTS WHO USE EXPRESS MAIL OR A COURIER SERVICE ARE ADVISED TO FOLLOW THE CARRIER'S REQUIREMENTS FOR SHOWING A STREET ADDRESS. THE ADDRESS FOR THE WESTWOOD BUILDING IS:

5333 Westbard Avenue  
Bethesda, Maryland 20816