

NIH GUIDE

**For Grants
and
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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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. 17, No. 2
January 15, 1988

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NOTICES

ANNOUNCEMENT - MOLECULAR MECHANICS WORKSHOP FOR BIOMEDICAL RESEARCHERS

P.T. 42; K.W. 0710020, 1004000

Division of Research Resources

Application Receipt Date: March 15, 1988

The Pittsburgh Supercomputing Center (PSC) is conducting a workshop on "Methods of Molecular Mechanics and Dynamics of Biopolymers," July 13-15, 1988, funded by a grant from the Division of Research Resources, Biomedical Research Technology (BRT) Program of the National Institutes of Health (NIH).

The workshop will familiarize biomedical researchers with computational methods and practice for the application of supercomputing resources to problems of concern in molecular mechanics. Practical experience will be gained in the application to (1) the problem of conformational mapping and analysis of polypeptide structures, (2) the structural refinement of polypeptides, proteins, and nucleic acids using constraints from measured NMR data, and (3) computation of interaction energies and free energies for protein-drug interactions. The use of state-of-the-art macromolecular computational packages, such as CHARMM and EXPLORE will be illustrated. Workshop leaders: Charles L. Brooks, III, Carnegie Mellon University and Axel T. Brunger, Yale University School of Medicine.

Travel, meal, and hotel accommodations are covered for academic participants under the grant. THE DEADLINE FOR THE SUBMISSION OF APPLICATIONS IS MARCH 15, 1988. Enrollment is limited to 20 participants.

For application forms and additional information, call or write:

Biomedical Coordinator
Pittsburgh Supercomputing Center
4400 Fifth Avenue
Pittsburgh, Pennsylvania 15213
Telephone: (412) 268-5206.

PHS GRANT APPLICATION FORM 398--REMINDERS

P.T. 34; K.W. 0710030, 1014002

National Institutes of Health

The newly revised form PHS 398 (dated 9/86) must be used by all NRSA Institutional Training Grant applicants. This requirement started with the January 10, 1988 receipt date. The revised form must also be used by all research grant applicants. This requirement starts with the February 1, 1988 receipt date. The page limitations indicated in the instructions for the 9/86 revision must be observed. PLEASE NOTE THAT ANY APPLICATION SUBMITTED ON ANY VERSION OF THE PHS 398 OTHER THAN THE 9/86 REVISION WILL BE RETURNED WITHOUT REVIEW, AS WILL APPLICATIONS THAT EXCEED THE PAGE LIMITS SPECIFIED IN THE PHS 398 INSTRUCTIONS OR SUPPLEMENTAL INSTRUCTIONS PERTAINING TO A PARTICULAR PROGRAM.

It is important to submit legible copies of the application. The original pages of the PHS 398 form, printed in orange ink, should be used. However, if these pages are not reproducible by any copying machine available to your institution, you may substitute the draft pages of the form (which are in black ink) after deleting the words "Remove and Use for Draft Copy" in the margin. DO NOT SUBSTITUTE THE 5/82 VERSION OF THE PHS 398. An application will be considered incomplete and returned if the original and all copies are not legible.

PHS 398 MISCONDUCT IN SCIENCE ASSURANCE

P.T. 34; K.W. 0710030, 1014002

National Institutes of Health

Applicant organizations should note that a new assurance related to misconduct in science has been added to the Public Health Service grant application form 398 (rev.9/86). This assurance is required under section 493 of the PHS Act as amended by P.L. 99-158, the "Health Research Extension Act". That statute

requires the Department of Health and Human Services (DHHS) to issue regulations requiring applicant organizations to establish an administrative process for reviewing reports of scientific fraud and to report to the Secretary any investigation of alleged scientific fraud that appears substantial.

PHS expects to publish a notice of Proposed Rulemaking (NPRM) implementing this requirement in the near future. It is important to note that the legislation does not require, and PHS does not intend to require, agency approval of institutional procedures, nor is it intended that the regulations will spell out in detail the administrative requirements for institutional procedures. Thus it would be quite appropriate for you to check "yes" if your institution has procedures in place now. However, applicants will not be required to provide this certification until the regulation becomes final. Future announcements in the GUIDE will note the dates of the proposed and final regulations.

INCLUSION OF WOMEN IN STUDY POPULATIONS

P.T. 34, II; K.W. 0770000, 1014002

National Institutes of Health

The Public Health Service Task Force on Women's Health Issues published its report in the January 1985 issue of Public Health Reports. One of the Task Force's major recommendations was that biomedical and behavioral research be expanded to assure appropriate emphasis on conditions and diseases unique to, or more prevalent in, women of all age groups.

In keeping with one aspect of this recommendation, the NIH urges applicants for grants and offerors for contracts to consider the inclusion of women in the study populations for all clinical research efforts. Exceptions would be studies of diseases which exclusively affect males or where involvement of pregnant women may expose the fetus to undue risks. Gender differences should be noted and evaluated. If women are not to be included, a clear rationale should be provided for their exclusion.

In order to provide more precise information to the medical community, it is recommended that publications resulting from NIH-supported research in which the study population was limited to one sex for any reason other than that the disease or condition studied exclusively affects that sex, should state, in the abstract or summary, the gender of the population studied, e.g., "male patients," "male volunteers," "female patients," "female volunteers."

For further clarification or discussion of this issue, contact:

Luz A. Froehlich, M.D.
Chairperson, Advisory Committee on Women's Health
National Institutes of Health
Telephone: (301) 496-7688

INCLUSION OF MINORITIES IN STUDY POPULATIONS

P.T. 34, FF; K.W. 1014002, 0710030

National Institutes of Health
Alcohol, Drug Abuse, and Mental Health Administration

The Secretary's Task Force on Black and Minority Health issued its report in October 1985. In its review of existing data, the Task Force noted the under representation of minorities in research studies. This has resulted in significant gaps in knowledge about minority subpopulations. This finding prompted the Task Force to recommend the expansion of biomedical and behavioral research to assure appropriate emphasis on health problems that disproportionately affect U.S. racial/ethnic minority populations (i.e., American Indian or Alaskan Natives, Asian/Pacific Islanders, Blacks, Hispanics). Currently, these problems include: cancer, chemical dependency, heart disease and stroke, homicide and accidents, diabetes, infant mortality and acquired immunodeficiency syndrome (AIDS).

In these emphasis areas (noted above), there are clear scientific and public health reasons for specifically including members of minority groups in study populations. However, investigators should be aware that merely including an arbitrary number of minority group participants in a given study is insufficient to guarantee generalization of the results. In attempting to

include minority groups in a particular study, attention must be paid to research design and sample size issues.

Also, the NIH and ADAMHA urge applicants for grants and offerors for contracts to give added attention (where feasible and appropriate) to the inclusion of minorities in the 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 are not included in a given study, a clear rationale for their exclusion should be provided.

For further clarification or discussion of this issue, contact:

John W. Diggs, Ph.D.
Director, Extramural Activities Program, NIAID
Vice-Chair, Subcommittee on Equal Opportunity
for Access in Extramural Programs
National Institutes of Health
Telephone: (301) 496-7291

Delores L. Parron, Ph.D.
Associate Director for Special Populations
Coordinator for Special Populations
Alcohol, Drug Abuse, and Mental Health Administration
Telephone: (301) 443-2847

DATED ANNOUNCEMENTS (RFPs AND RFAs AVAILABLE)

EVALUATION OF CHEMOPREVENTIVE AGENTS BY IN VITRO TECHNIQUES

RFP FOR MASTER AGREEMENT AVAILABLE: NCI-CN-85075

P.T. 34; K.W. 0740000, 0755010

National Cancer Institute

The required services will be defined by Master Agreement Orders issued during the one-year period of performance. This is a recompetition of a previously established Master Agreement pool.

Pursuant to the Master Agreement Orders (MAOs), the Contractor shall screen and evaluate the activity of chemopreventive agents in various in vitro assays of cell transformation. Agents with potential chemopreventive activity are identified by epidemiologic surveys, initial laboratory (experimental) findings, observations in the clinical setting, or structural homology with agents having known chemopreventive activity. A rigorous and systematic evaluation of these candidate agents is necessary before their efficacy can be examined in clinical trials for cancer prevention. In vitro screening and evaluation techniques measuring the ability of these chemopreventive agents to inhibit transformation provide relatively rapid and efficient means of qualifying these agents for further evaluation for the prevention of cancer in humans.

Agents to be investigated by this project are potentially hazardous. The in vitro systems may involve the use of carcinogens, tumor cells or tumor viruses. Laboratories shall employ practices which will keep any element of risk to personnel at an absolute minimum. Where indicated, tissue and compound handling must be performed in (at least) Class I laminar flow cabinets which must meet NIH specifications for work with these agents. The offeror shall comply with NCI safety standards for research involving chemical carcinogens (DHHS publication No. NIH 76-900 and the FDA Good Laboratory Practices Regulations).

Facilities will be required to have operating tissue culture/cell biology and chemistry laboratories which are suitable for testing hazardous and/or carcinogenic materials

Approximately 10 task orders per year will be issued pursuant to the award(s) of the Master Agreement contracts. The Master Agreements awarded as a result of this RFP will remain in force for a period of three years.

The contractor must have or be able to obtain all the equipment necessary to accomplish the studies, including, but not limited to, laminar flow hoods, CO2 incubators, equipment for sterility testing, isotope counters, spectrophotometer, hazardous chemical storage cabinets and refrigerators, and

equipment such as microscopes and miscellaneous laboratory equipment. The laboratory shall have or have access to appropriate terminal and computer facilities and equipment for data collection and storage.

The RFP will be available on or after January 15, 1988, and proposals will be due by approximately March 4. Copies of the RFP may be obtained by written request to:

Alan Kraft, Contract Specialist
Research Contracts Branch, PCCS
Blair Building, Room 2A07
National Cancer Institute
National Institutes of Health
Bethesda, Maryland 20892
Telephone: (301) 427-8745

PRECLINICAL TOXICOLOGY OF CHEMOPREVENTIVE AGENTS

RFP FOR MASTER AGREEMENT AVAILABLE: NCI-CN-85074

P.T. 34; K.W. 0740000, 1007009

National Cancer Institute

The required services will be defined by Master Agreement Orders issued during the one-year period of performance. This is a recompetition of a previously established Master Agreement Pool.

A primary function of the chemoprevention program is the identification and evaluation of agents for possible utilization in clinical trials in humans. Candidate agents, whether from natural sources or synthesized, have been evaluated for anti-cancer efficacy in various screening tests. However, before a decision can be made as to their suitability for the Phase I clinical trials in humans, they must be evaluated for toxicity in animals.

The basic objectives of this project will be to evaluate the acute, subacute/subchronic and chronic toxicity of designated agents. These studies will be performed in animals (rodents and dogs) and will include conventional short-term studies, life-time studies in rodents and dogs, and multi-generation teratogenicity studies. The agents would be given primarily by the oral route.

A summary of the tasks required in the project are as follows:

Task I

Perform acute toxicity, pilot dose range finding, and 13-week subchronic toxicity in rats and dogs by the oral route. Include, where appropriate, complete gross necropsies, histopathological examinations, and clinical laboratory studies.

Task II

Develop a protocol for a pharmacokinetic profile for each investigational agent. The protocol and profile may build upon published data and data provided by the manufacturer of the agent or by NCI staff. Additional studies necessary to complete the pharmacokinetic profiles for the rat and the dog shall be performed by the Contractor. Pharmacokinetic studies will provide parameters of absorption, blood concentration-time profiles, distribution, and excretion. Data on tissue concentration of the test agent, determined as part of the toxicology testing, shall contribute to the pharmacokinetic profile. Information on major metabolites shall be included in order to provide as complete a picture as possible of the overall distribution and fate of the test agent. Appropriate modeling shall be applied to determine probable pattern of distribution and compartmentalization.

The first studies performed shall be designed to provide absorption and half-life information necessary to plan the 90-day rat and dog toxicology studies.

Task III

Develop and perform teratogenicity studies on chemopreventive agents that have the prospect of being administered to women of childbearing potential. These will be the standard segment I, II, and III studies as described in the Guidelines for Reproduction Studies for Safety Evaluation of Drugs for Human Use, available from the Contract Specialist, upon request. For efficiency,

the male rats from the 3-month oral study may be used to initiate the male-related reproductive toxicity studies.

Task IV

Perform chronic one-year oral toxicity studies in rats and dogs. Clinical laboratory studies and gross and microscopic necropsy findings are to be included.

It is estimated that up to four (4) Master Agreement Orders per year will be issued pursuant to the award(s) of the Master Agreement contracts. The Master Agreements awarded as a result of this RFP will remain in force for a period of three (3) years.

Suitable facilities and equipment appropriate to accomplish tasks should be available. Animal-holding facilities for dogs must be provided with adequate environmental containment. The facilities must have design and maintenance capability to meet chemical and biological control; must comply with NCI carcinogens and handling standards (available with the RFP); and must comply with federal and state occupational health and environmental laws and regulations. On-site data handling (computer), chemical, and pathological facilities and equipment should be available. Facilities must comply with requirements set forth in the FDA Good Laboratory Practice Regulations.

The RFP will be available on or after January 15, 1988, and proposals will be due on approximately March 4. Copies of the RFP may be obtained by written request to:

Alan Kraft, Contract Specialist
Research Contracts Branch, PCCS
Blair Building, Room 2A07
National Cancer Institute
National Institutes of Health
Bethesda, Maryland 20892
Telephone: (301) 427-8745

FEASIBILITY OF A CENTRAL NERVOUS SYSTEM AUDITORY PROSTHESIS

RFP AVAILABLE: NIH-NINCDS-88-03

P.T. 34; K.W. 0705055, 0740030

National Institute of Neurological and Communicative Disorders and Stroke

The National Institute of Neurological and Communicative Disorders and Stroke has a requirement to perform feasibility studies of a central nervous system auditory prosthesis based on microstimulation of the cochlear nucleus.

Offeror should have experience in neurohistopathology and electrical stimulation of excitable tissue. Offerors must also have access to postmortem tissue from hearing and deaf individuals.

This requirement represents the recompetition of a current contract with The University of Michigan and the incumbent is expected to reapply.

This is an announcement of an anticipated Request for Proposals. RFP-NIH-NINCDS-88-03 will be issued on or about January 15, 1988, with a closing date for receipt of proposals set for March 15, 1988.

To receive a copy of the RFP, please supply this office with two self-addressed mailing labels. All responsible sources may submit a proposal which will be considered by the agency. The RFP will be available upon written request to:

Contracting Officer
Contracts Management Branch, NINCDS
National Institutes of Health
Federal Building, Room 901
Bethesda, Maryland 20892

INSTITUTIONAL TRAINING GRANT APPLICATIONS--IMMUNOLOGY, MOLECULAR BIOLOGY, AND MOLECULAR GENETICS

P.T. 44; K.W. 1002008, 1002058, 0710070

National Eye Institute

Application Receipt Dates: April 1, 1988
January 10 in subsequent years

AVAILABILITY AND PURPOSE

National Eye Institute (NEI) National Research Service institutional training grants (T32s) provide predoctoral and postdoctoral research training opportunities for individuals committed to careers as independent investigators in the sciences related to vision and disorders of the visual system.

Scientific areas of high programmatic relevance to the NEI, both fundamental and more clinically applied, are described in "Vision Research-A National Plan: 1983-1987" and the recently published "Evaluation and Update." Both documents, available from NEI, emphasize the need to attract new investigators with backgrounds in molecular biology, immunology, and molecular genetics, and to provide research training in these areas.

The NEI encourages the submission of T32 applications for the support of predoctoral and/or postdoctoral training programs in the areas of immunology, molecular biology, and molecular genetics. Preference will be given to predoctoral training programs specifically focused in these scientific areas. Departments of Cell and Molecular Biology, Genetics, Biochemistry, Microbiology, and Immunology are some possible locations for such training. Predoctoral candidates are expected to receive fundamental training in one of the basic disciplines mentioned and an introduction to vision research opportunities. Postdoctoral level training should be in one of the targeted areas and directed toward implementing NEI programmatic research priorities. New applications and competing supplemental applications will be accepted.

APPLICATION INFORMATION

The information in this announcement is supplementary to the general information provided by the National Institutes of Health ("NIH Guide for Grants and Contracts", Vol. 16, No. 20, June 12, 1987, and the additional instructions contained in the required PHS Form 398, Rev. 9/86).

The application receipt date for 1988 only is April 1, 1988. Thereafter, applications will be accepted at the January 10 receipt date only.

In general only one NEI T32 award will be made per institution (or campus for multicampus institutions); interdepartmental applications are encouraged when appropriate. Exceptions to this guideline will be made for new T32 applications which are responsive to this announcement. Applications for joint training programs may be submitted by neighboring institutions.

REVIEW AND SELECTION

Each application received by the NEI is reviewed first by a scientific peer review group (the NEI Vision Research Review Committee) and then by the National Advisory Eye Council. Applications are evaluated on the basis of the proposed research training objectives and program design, the qualifications and commitment of the training director and participating faculty, the previous research training record, the institutional commitment, suitability of facilities and the research environment, and the relationship of the proposed training program to the research priorities of the NEI.

ADDITIONAL INFORMATION

Applicants should contact the NEI Training Program Director prior to submitting applications:

Peter A. Dudley, Ph.D.
NEI Training Program Director
National Eye Institute
National Institutes of Health
Building 31, Room 6A46
Bethesda, Maryland 20892
Telephone: (301) 496-5884

SEVENTH ANNOUNCEMENT - TRANSFUSION MEDICINE ACADEMIC AWARD

P.T. 34; K.W. 0750010, 0710030, 0785035

National Heart, Lung, and Blood Institute

Application Receipt Date: September 15, 1988

The Transfusion Medicine Academic Award (TMAA) was initiated in January 1983, to: (1) stimulate the development of multidisciplinary curricula in transfusion medicine, and (2) permit the awardee to broaden his or her expertise in transfusion medicine so as to contribute more effectively to the teaching, research, and clinical needs of this discipline. "Transfusion medicine" is defined as a multidisciplinary area concerned with the proper use or removal of blood and its components in the treatment or prevention of disease states. Schools of medicine, osteopathy, or veterinary medicine (in the United States or its possessions and territories), singly or in concert, are eligible to apply for one 5-year TMAA (nonrenewable), providing they possess the requisite blood bank, patient care, and research facilities required for such an activity. In the case of veterinary medicine, the focus of the program must be on its applicability to human health and disease, which may require a collaborative effort between schools of animal and human medicine. The TMAA may provide salary, fringe benefits, supporting costs, and indirect costs to faculty members who are established investigators, and skilled organizers and negotiators. The number of awards made each year will depend on the availability of funds.

The Transfusion Medicine Academic Award encourages the development of teaching and research programs in transfusion medicine. At present, teaching, research, and clinical responsibilities in transfusion medicine usually are not coordinated into a definable program but are dispersed among basic and clinical science disciplines and among activities of the local transfusion services or blood center facility. It is important to note that a transfusion medicine curriculum may not require additional curriculum time; existing course time and teaching materials, as components of other disciplines, may be coordinated into an overall program and organized to focus on emerging and important areas of transfusion medicine. Some schools may find it desirable to assemble the appropriate components into a specific unit. Others may wish to retain the transfusion medicine discipline as part of another major department.

This award is also intended to:

- o attract to the field of transfusion medicine outstanding students and promising young clinicians and scientists who can serve in the teaching, research, and clinical aspects of transfusion medicine;
- o encourage the development of faculty capable of providing appropriate instruction in the field of transfusion medicine;
- o facilitate interchange of information, and evaluation and educational techniques among research, medical, and blood service communities; and
- o enable the grantee institution to develop a continuing transfusion medicine program, using local support, when this award terminates.

Requests for the TMAA Program Guidelines should be directed to:

Fann Harding, Ph.D.
Division of Blood Diseases and Resources
Federal Building, Room 5A08
National Heart, Lung, and Blood Institute
National Institutes of Health
Bethesda, Maryland 20892
Telephone: (301) 496-1817

The programs of the Division of Blood Diseases and Resources of the National Heart, Lung, and Blood Institute are identified in the Catalog of Federal Domestic Assistance, number 13.839. 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 Health Systems Agency Review.

ONGOING PROGRAM ANNOUNCEMENTS

COMPLEMENTARY TRAINING AWARDS FOR RESEARCH ON AGING (T32)

P.T. 44; K.W. 0710010, 0720005, 0404000

National Institute on Aging

Application Receipt Dates: January 10, May 10, September 10

INTRODUCTION AND PURPOSE

The National Institute on Aging (NIA) invites established institutional research training programs supported by Public Health Service National Research Service Awards (NRSAs) to submit applications for complementary NRSAs to train investigators in aging-related aspects of the established program. The purpose of this initiative is to encourage established programs to offer training opportunities for careers in research on aging and, thus, to increase the number of investigators trained in both aging and related disciplines. (Aging refers to all aspects of gerontology and geriatrics, i.e., biomedical, clinical, behavioral, and social aspects of aging and the special problems of older persons.)

This announcement is in addition to and does not replace the previous NIA announcement regarding primary training programs in aging and geriatrics. Institutions with established research programs in aging or geriatrics are encouraged to consider applying for regular institutional training program support under an NRSA as described in the announcement in the NIH Guide for Grants and Contracts, Vol. 16, No. 20, June 1987.

BACKGROUND

Research in aging encompasses a wide range of issues and complexities. To address them effectively often requires that investigators have preparation in both the field of aging and a related scientific field or discipline. The Report on Education and Training in Geriatrics and Gerontology (U.S. Department of Health and Human Services, submitted to Congress in February 1984) pointed out that building upon the strengths and capacities of established training programs in related fields is an effective method of preparing individuals for research in aging. Examples of the wide variety of fields in which such activities might be undertaken are programs in the neurosciences, clinical pharmacology, sensory and cognitive psychology, cell biology, sociology, demography and various disease-oriented research areas.

This approach takes advantage of the relevance and resources of established research training programs in various scientific fields. It offers a unique opportunity to prepare individuals for research careers focused on aging issues. It is expected that understanding and collaboration between the aging field and other scientific disciplines will be furthered.

SPECIFIC REQUIREMENTS

The complementary training award is intended for strong and already established institutional research training programs in scientific fields which are relevant to aging. The objective is to expand their training efforts to include individuals who are interested in careers with a major focus in aging-related research and education. This is viewed as separate from but additive to established training programs where aging is the central theme.

The following elements must be considered in each complementary training proposal:

1. Initiation by a strong, well-established research training program in a field relevant to aging. The existing training program must be supported by a PHS institutional NRSA (the parent grant), with at least 3 years remaining in the current project period.
2. Administration by a program director interested in and committed to expanding the current program to give more attention and emphasis to aging-related training.
3. Commitment of up to two predoctoral and one to three potential postdoctoral trainees to careers with a major emphasis in aging-related research and training.

4. Arrangements for the trainees to be associated on a continuing basis with others working in the aging field at the sponsoring institution (or, in special circumstances, through agreement with another nearby institution).
5. A career development plan indicating how the program director and trainees will enhance research competencies in both aging and the specialized field of the sponsoring program during the training period, including active and ongoing participation in aging-related projects.

The applicant should clearly identify and briefly describe the existing training program under Section 2.B. of the PHS 398 application form. Progress of the parent grant should be given in a concise manner. In addition, the full grant number, number and category of trainees and level of funding should be included. While the complementary application will receive an independent NIA training grant number, the grant number of the parent grant is required as a reference.

The training program director at the institution will be responsible for the selection and appointment of trainees to receive NRSA support and for the overall direction of the program. The training program must provide opportunities for individuals to carry out supervised biomedical or behavioral research with the primary objective of extending skills and knowledge. Special attention should be given to the appointment of minority students and women.

APPLICANT ELIGIBILITY REQUIREMENTS

Complementary applications may be submitted by domestic nonprofit private or public institutions with established research training programs supported by PHS. Applicant institutions must have, or be able to develop, the staff and facilities required to expand existing programs into aging-related areas

TRAINEE ELIGIBILITY REQUIREMENTS

Individuals to be trained must be citizens or noncitizen nationals of the United States or have been lawfully admitted for permanent residence at the time of appointment. Individuals on temporary or student visas are not eligible.

Predoctoral trainees must have received a baccalaureate degree as of the beginning date of their NRSA appointment, and must be training at the postbaccalaureate level in a program leading to the award of doctor of philosophy or science or equivalent degree. Individuals who wish to interrupt their medical, veterinary, dental, or other professional school studies for a year or more to engage in full-time research training before completing their professional degrees are also eligible. National Research Service Awards may not support study leading to the M.D., D.O., D.D.S., or other similar professional degrees, nor may these awards support residency training.

Postdoctoral trainees must have received, as of the beginning date of the NRSA appointment, Ph.D., M.D., D.O., D.D.S., D.M.D., O.D., D.P.H., Sc.D., D.V.M., Eng.D., Dr.P.H., D.N.S., or equivalent degree from an accredited domestic or foreign institution. Certification that all degree requirements have been met by an authorized official of the degree-granting institution is acceptable.

Trainees are required to pursue their research training on a full-time basis. Trainees in clinical areas are expected to confine clinical duties to those that are part of the research training.

PROVISIONS OF THE AWARD

1. In order to be appointed to a training grant, trainees must sign an agreement that they will fulfill the NRSA payback requirements. Recipients agree to engage in biomedical, behavioral, or social health-related research and/or teaching for a period equal to the period of NRSA support in excess of 12 months. Once an individual has had 12 months of postbaccalaureate NRSA support, all subsequent NRSA support is subject to payback.

Recipients must undertake the obligated service on a continuous basis within 2 years after termination of NRSA support. For an individual who fails to fulfill the obligation through service, the United States is entitled to recover the total amount paid to that individual for the obligated period, plus interest. Financial payment must be completed within 3 years.

2. Institutional grants may be made for competitive segments of up to 5 years and are renewable only once. The project period of the complementary grant

must coincide with that of the parent training grant. A complementary program may not extend beyond the termination date of the parent program, and the beginning date of the complementary program should coincide with the budget period start date of the parent grant, i.e., July 1, August 1, etc.

Only one competing renewal is permitted since it is expected that after an initial 3 to 5 years of support on a complementary program, sufficient resources will be developed to support a full-fledged training program in research related to aging. If a competing renewal of a complementary training program is contemplated, the application should be submitted concurrently with the competing renewal of the parent grant.

Individual trainees may not receive more than 5 years of aggregate NRSA support at the predoctoral level and 3 years of aggregate NRSA support at the postdoctoral level, including any combination of support for institutional and individual awards. Any exception to this policy requires a waiver from NIH.

3. The current stipend level for predoctoral individuals at all levels of experience is \$6,552 per annum.

The stipend for the first year of support is determined by the number of years of relevant postdoctoral experience at this time of appointment. Relevant experience may include research experience (including industrial), teaching, internship, residency, or other time spent in full-time studies in a health-related field beyond that of the qualifying doctoral degree. The stipend for each additional year of NRSA support is the next level on the stipend structure. Current postdoctoral stipends are:

Years of Relevant Experience	Stipend
0	\$15,996
1	17,004
2	21,996
3	23,004
4	24,000
5	26,004
6	27,996
7	30,000

NRSA stipends may be supplemented by an institution from non-Federal funds. No Federal funds may be used for stipend supplementation unless specifically authorized under the terms of the program from which funds are derived. Funds provided as compensation (salary or tuition remission) for services rendered, such as teaching or laboratory assistance, are not considered as stipend supplementation. Under certain conditions trainees may be compensated for actual employment on Federal grants, including PHS research grants. Under no circumstances may the conditions of stipend supplementation or coincidental employment detract from or prolong the training period.

Tuition, fees, and medical insurance are allowable trainee costs if such charges are required of all persons in a similar training status at the institution, without regard to their source of support. Tuition at the postdoctoral level is limited to that required for specific courses in support of the approved training program. Costs of trainee travel (including attendance at scientific meetings) that the institution determines to be necessary to the individual's training may be requested.

Institutional costs of up to \$1,500 per year per predoctoral trainee and up to \$2,500 per year per postdoctoral trainee may be requested to defray the costs of training-related expenses such as staff salaries, consultant costs, equipment, research supplies, staff travel, and other expenses. The availability of funds may modify the maximum levels of institutional costs awarded. An indirect cost allowance based on 8 percent of total allowable direct costs, or actual, whichever is less, may be requested. Applications from State and local government agencies may request full indirect cost reimbursement.

REVIEW PROCESS

Complementary applications are evaluated independently for scientific merit by an NIA initial review group based on the following criteria: proposed research training objectives and program design, qualifications of participating faculty, previous training record of the research program and its ability to attract high-caliber trainees, availability of research support, progress of the funded research training program, extent of the institutional commitment, and available facilities. Applications then undergo a second level of review by the National Advisory Council on Aging. Final selection will be made by the NIA based on recommendations of the review group

and the Advisory Council. Consideration will be given to relevance of the complementary program to aging research, the need for research personnel in specified program areas, and the availability of funds. The Institute will notify applicants of final actions shortly after the meeting of the National Advisory Council on Aging.

REVIEW SCHEDULE

Application Receipt Date	Initial Review Meeting	Council/Board Meeting	Earliest Start Date
January 10	June/July	September/October	December 1
May 10	October/November	January/February	April 1
September 10	February/March	May/June	July 1

APPLICATION PROCEDURES

Application must be made on Form PHS 398 (rev. 9/86). These forms, together with supplementary instructions for preparation of institutional training grant applications, are available at most institutional business or research offices or from the Office of Grants Inquiries, Division of Research Grants, NIH, Bethesda, Maryland 20892. A self-addressed mailing label will expedite handling.

Applicants are encouraged to discuss their plans and the evaluation criteria with, and direct any other inquiries to:

Associate Director
Biomedical Research and Clinical Medicine
National Institute on Aging
National Institutes of Health
Building 31, Room 5C09
Bethesda, Maryland 20892
Telephone: (301) 496-4996

Associate Director
Behavioral and Social Research
National Institute on Aging
National Institutes of Health
Building 31, Room 4C32
Bethesda, Maryland 20892
Telephone: (301) 496-3136

Associate Director
Neuroscience and Neuropsychology of Aging
National Institute on Aging
National Institutes of Health
Building 31, Room 5C27
Bethesda, Maryland 20892
Telephone: (301) 496-9350