

# NIH Guide for Grants and Contracts

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U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

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The NIH Guide is published at irregular intervals to announce scientific initiatives and to provide policy and administrative information to individuals and organizations who need to be kept informed of opportunities, requirements, and changes in grants and contracts activities administered by the National Institutes of Health.

Two types of supplements are published by the respective awarding units. Those printed on yellow paper concern contracts: solicitations of sources and announcement of availability of requests for proposals. Those printed on blue paper concern invitations for grant applications in well-defined scientific areas to accomplish specific program purposes.

#### Have You Moved?

If you present address differs from that shown on the address label, please send your new address to: Grants and Contract Guide Distribution Center, National Institutes of Health, Room B3BN10, Building 31, Bethesda, Maryland 20205, and attach your address label to your letter. Prompt notice of your change of address will prevent your name from being removed from our mailing list.

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**NOTICE**

**TISSUE BANKING AND DISTRIBUTION PROGRAM**

**P.T. 36; K.W. 0780005, 0780020**

**DIVISION OF RESEARCH RESOURCES**

The Tissue Banking and Distribution Program at the University of Washington Regional Primate Research Center provides tissue and fluid specimens from macaques and baboons. Deliveries of quick-frozen or fixed specimens are made on a scheduled basis. Viable specimens in culture media are prepared for shipment in less than an hour and delivered to most laboratories in the U.S. within 24 hours. More specialized preparations are supplied on request. A clinical and experimental history of the donor animal accompanies each specimen.

This Tissue Banking and Distribution Program is partially supported by the Division of Research Resources, NIH.

For more information, call or write:

Ms. Judy Johnson  
Tissue Program Coordinator  
Regional Primate Research Center, SJ-50  
University of Washington  
Seattle, Washington 98195

Telephone: (206) 543-6999

**NOTICE****MONTHLY MAILING OF TRAINING GRANT AND FELLOWSHIP CONTINUATION APPLICATIONS****P.T. 22,44; K.W. 0720005, 1014002****DIVISION OF RESEARCH GRANTS****NATIONAL INSTITUTES OF HEALTH**

Historically, Training and Fellowship noncompeting continuation application kits were sent directly to the program directors or fellows by NIH. The kits were not handled like research grants where the grantee institution control offices stocked the forms and received a notice (computerized face page) for each grant at the appropriate time. At the urging of several grantee institution officials, NIH recently started to handle Training and Fellowship continuation applications like research grants. However, since the forms are now being revised, and because we have a limited number of the old Training and Fellowship kits, we are slightly modifying the plan. We will continue to mail continuation notices for Training and Fellowship grants to the institution control offices, and until further notice, we will also include application kits with the notices. For the present time, it will not be necessary for control offices to stock supplies of the Training grant application kits (PHS 6025-2) or the Fellowship continuation application kits (PHS 416-9) for all awardees at the institutions. However, as soon as the new Training and Fellowship continuation application forms are ready for distribution, new instructions will be issued requesting grantee institution control offices to once more stock the Training and Fellowship kits.

**NOTICE****MORATORIUM ON ACCEPTANCE OF PROGRAM DENTIST SCIENTIST AWARD APPLICATIONS****P.T. 34; K.W. 0785040, 0710030****NATIONAL INSTITUTE OF DENTAL RESEARCH**

Beginning with the February 1, 1986 application receipt date, the National Institute of Dental Research (NIDR) will no longer accept new or amended applications for the Program Dentist Scientist Awards (K16 series). An announcement was made on August 20, 1985, by a special alert memorandum to the deans of all the U.S. dental schools to this effect. It is hoped that competing applications can again be accepted for review and possible funding at a future time.

Applications for Individual Dentist Scientist Awards and Physician Scientist Awards for dentists will continue to be accepted by the NIDR.

**ANNOUNCEMENT**

**AVAILABILITY OF REQUEST FOR APPLICATIONS: (RFA)**

**86-HL-8-P**

**RESEARCH IN NUTRITION AND CARDIOVASCULAR DISEASES**

**P.T. 34; K.W. 0715040, 0710095, 0715020, 0502017**

**DIVISION OF EPIDEMIOLOGY AND CLINICAL APPLICATIONS**

**NATIONAL HEART, LUNG, AND BLOOD INSTITUTE**

Application Receipt Date: April 18, 1986

The Prevention and Demonstration Research Branch of the DECA, National Heart, Lung, and Blood Institute (NHLBI), announces the availability of a Request for Applications (RFA) on the above subject. Copies of the RFA are currently available from staff of the NHLBI. Awards will be made to foreign institutions only for research of very unusual merit, need, and promise.

This program will support research in nutrition and CVD, including basic, clinical, behavioral, and demonstration and education research. There should be a central theme for the program; each component project must clearly relate to the central theme and the components should complement each other. Since many approaches are possible, this research solicitation may be of interest to investigators in a variety of disciplines such as cardiology, physiology, biochemistry, epidemiology, pediatrics, nutrition, behavioral sciences, and public health, with particular expertise in hyperlipidemia, hypertension and obesity.

Request for copies of the RFA should be addressed to:

Sue Y.S. Kimm, M.D., M.P.H.  
PDRB, DECA, NHLBI  
National Institutes of Health  
Federal Building - Room 6A10  
7550 Wisconsin Avenue  
Bethesda, Maryland 20892

Telephone: (301) 496-3503

**ANNOUNCEMENT****AVAILABILITY OF REQUEST FOR APPLICATIONS: (RFA)****86-HL-13-H****MODEL SYSTEMS FOR BLOOD CHOLESTEROL SCREENING****P.T. 34; K.W. 0745020, 0411015, 0735015, 0745055****DIVISION OF HEART AND VASCULAR DISEASES****NATIONAL HEART LUNG, AND BLOOD INSTITUTE**

Application Receipt Date: April 16, 1986

The Lipid Metabolism Atherogenesis Branch of the Division of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute (NHLBI) announces the availability of a Request for Applications (RFA) on the above subject. Copies of the RFA are currently available from staff of the NHLBI.

The program will support research to develop and evaluate model systems for blood cholesterol screening with additional emphasis on the educational and referral strategies which are necessary to bring those individuals identified at risk to medical treatment. The research will document the effectiveness of various screening strategies and will include planning that should be done in collaboration with medical resources within a community to ensure the availability of follow-up of individuals who will be referred from population screenings. Additionally the research will test the precision and accuracy, under operational conditions, of several new instruments that measure cholesterol levels in capillary blood derived from fingerstick specimens.

Staffing and consultation for the research should be multidisciplinary and include an appropriate representation of professionals with expertise in areas such as preventive medicine, lipid disorders, epidemiology, community health studies, behavioral science, health education, dietetics and nutrition counselling, and administration of health services.

Request for copies of the RFA should be addressed to:

Beth Schucker, M.A.  
Division of Heart and Vascular Diseases  
National Heart, Lung, and Blood Institute  
National Institutes of Health  
Federal Building - Room 401  
Bethesda, Maryland 20892

Telephone: (301) 496-1681

**ANNOUNCEMENT**

**AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA**

**86-EY-01**

**INHERITED RETINAL DEGENERATIONS IN ANIMAL MUTANTS**

**P.T. 34; K.W. 1002002, 1002046**

**NATIONAL EYE INSTITUTE**

Application Receipt Date: March 15, 1986

The National Eye Institute (NEI) invites applications for assistance awards to support the breeding of animal mutants with inherited retinal degenerations and the coordinated distribution of animals and tissues to qualified investigators.

**I. BACKGROUND INFORMATION**

Retinitis Pigmentosa and other degenerative diseases of the retina and choroid are major causes of blindness. Advances against these diseases depend greatly on the development and study of appropriate animal mutants, since retinal biopsies are not performed, and donor eyes from afflicted individuals are only sporadically available. Animal research is needed to enable investigators to define sharply the questions asked when human retinal tissue is obtained. Even in the absence of precise overlap in pathogenesis, the study of animal mutants can provide new information about photoreceptor degenerations generally and about the normal biology of the retina.

**II. RESEARCH GOALS AND SCOPE**

A large number of retinal degeneration mutants exist, but many have not been adequately characterized, either genetically or phenotypically, and only a few are readily available from commercial sources. Fewer still have been systematically studied with regard to the mechanisms which produce photoreceptor cell death. The goal of this RFA is to increase the availability of the more promising of these mutants to qualified investigators. It is expected that increased availability will stimulate research by attracting new investigators to this field.

Applicants should be experts in retinal degeneration research and have extensive experience in the identification, characterization, and breeding of animal mutants with inherited retinal degenerations. Applications should be focused on specific plans for the breeding and distribution of a well-characterized mutant(s), appropriate control animals, and tissues. Plans should be provided for assisting other investigators in making maximum use of these valuable animals.



### III. MECHANISM OF SUPPORT

Awards will be made as cooperative agreements. These awards reflect an assistance relationship in which substantial involvement by the Chief, Retinal and Choroidal Diseases Branch, NEI during performance of the project is anticipated. Cooperative agreements resulting from this RFA will be subject to the same administrative requirements pertaining to all assistance awards of the U.S. Public Health Service. The terms and conditions of NEI staff involvement are included in the complete RFA.

It is anticipated that two to three awards will be made as a result of this competition. Awards will generally be made for project periods of five years. Up to \$500,000 will be available for this program in Fiscal Year 1986, but the specific amount will depend on the merit and scope of the applications received and the availability of funds.

Timetable:	Application receipt date	April 1, 1986
	Scientific merit review	May 1986
	National Advisory Eye Council review	June 2-3, 1986
	Anticipated award date	July 1, 1986

### IV. INQUIRIES

A copy of the complete RFA providing background information, research goals and scope, terms and conditions, review procedures and criteria, and method of applying may be obtained by contacting the NEI program director:

Dr. Jack A. McLaughlin  
 Chief, Retinal and Choroidal Diseases Branch  
 National Eye Institute  
 Building 31 - Room 6A51  
 Bethesda, Maryland 20892

Telephone: 301-496-5983.

**ANNOUNCEMENT**

**AVAILABILITY OF REQUEST FOR COOPERATIVE AGREEMENT APPLICATIONS: RFA  
86-EY-02**

**COLLABORATIVE OCULAR MELANOMA STUDY: COOPERATING CLINICS**

**P.T. 34; K.W. 0755015, 0715100**

**NATIONAL EYE INSTITUTE**

Application Receipt Date: April 1, 1986

The NEI invites applications for assistance awards to support additional participating clinics for the Collaborative Ocular Melanoma Study.

**I. BACKGROUND INFORMATION**

The Collaborative Ocular Melanoma Study (COMS) is a multicenter, randomized, controlled clinical trial designed to compare the efficacy of enucleation vs. irradiation in the treatment of eyes with choroidal melanoma. Awards have already been made to nineteen cooperating clinics across the United States to begin the study. Awards to the Johns Hopkins University support the activities of the Study Chairman and Coordinating Center. The NEI estimates that the participation of additional clinics will be needed in order to meet patient recruitment goals in a timely manner.

**II. RESEARCH GOALS AND SCOPE**

Each collaborating clinic will be responsible for recruiting patients, treating them in accord with a random assignment, following them according to a prescribed schedule, collecting and recording all data, and forwarding data to the Coordinating Center. The design of the COMS, study organization, policy issues, requirements for informed consent, and all other matters relating to the conduct of the study are detailed in the COMS Manual of Procedures.

**III. MECHANISM OF SUPPORT**

Awards will be made as cooperative agreements. These awards reflect an assistance relationship in which substantial involvement with NEI staff during performance of the project is anticipated. Cooperative agreements resulting from this RFA will be subject to the same administrative requirements pertaining to all assistance awards of the U.S. Public Health Service. The terms and conditions of NEI staff involvement are included in the complete RFA.

It is anticipated that two to six awards will be made as a result of this competition. Awards will be made for project periods of five years. Up to \$350,000 will be available for this program in Fiscal Year 1986, but the specific amount will depend on the merit and scope of the applications received and the availability of funds.

Timetable:	Application receipt date	April 1, 1986
	Scientific merit review	May, 1986
	National Advisory Eye Council review	June 2-3, 1986
	Anticipated award date	July 1, 1986

#### IV. INQUIRIES

A copy of the complete RFA providing background information, research goals and scope, the nature of NEI staff participation, review procedures and criteria, and method of applying may be obtained by contacting the following NEI program director:

Dr. Jack A. McLaughlin  
Chief, Retinal and Choroidal Diseases Branch National  
Eye Institute  
Building 31 - Room 6A51  
Bethesda, Maryland 20892

Telephone: 301-496-5983.

**ANNOUNCEMENT**

**AVAILABILITY OF REQUEST FOR COOPERATIVE AGREEMENT APPLICATIONS: RFA  
86-CA-03**

**PREVENTION CLINICAL TRIALS UTILIZING INTERMEDIATE ENDPOINTS AND THEIR  
MODULATION BY CHEMOPREVENTIVE AGENTS**

**P.T. 34; K.W. 0755015, 0715035, 0745055, 04110015**

**NATIONAL CANCER INSTITUTE**

Application Receipt Date: April 11, 1986

The Division of Cancer Prevention and Control (DCPC), National Cancer Institute (NCI), invites applications for cooperative agreements to support clinical trials which are directed toward examining the role of various chemopreventive trials which utilize biochemical and biological markers to identify populations at risk and/or to provide intermediate endpoints that may predict later reduction in cancer incidence rates are encouraged.

These studies should be developed in phases, including a pilot phase, which could later proceed to a full scale intervention. The main emphasis should be on small, efficient studies aimed at improving future research designs of chemoprevention trials, providing biologic understanding of what is happening in the trials, or providing better, more quantitative and more efficient endpoints for these trials. After successful completion of the pilot phase; (i.e., demonstrated modulation of marker endpoints by the intervention), subsequent studies will include monitoring test system and a cancer incidence or mortality endpoint may be implemented.

Investigators may apply at this time for the pilot phase, or submit an application for both phases. However, if the application is for the pilot phase only, the proposed study must be relevant to a clinical application and utilize a chemopreventive agent, marker test system, and study population which could later be the subject of a full scale, double-blind, randomized, risk reduction, clinical trial.

Applicants funded under this RFA will be supported through the cooperative agreement mechanism. An assistance relationship will exist between NCI and the awardees to accomplish the purpose of the activity. As more completely described later in this announcement, the recipients will have primary responsibility for the development and conduct of the research. Programmatic involvement by the government will be in the form of: (1) NCI assistance with the FDA in securing INDS, if required, (2) safety toxicity review, (3) safety monitoring in cases when the NCI is the IND sponsor, (4) assistance from NCI staff relating to drug availability, and (5) review of clinical laboratory quality assurance activities in the assay of collected sera if necessary.

Involvement will specify the level of NCI program assistance and cooperation.

Copies of the complete request for applications and additional information may be obtained from:

Mary Ann Sestili, Ph.D.  
Chemoprevention Branch  
Blair Building - Room 616  
National Cancer Institute  
Bethesda, Maryland 20205

Telephone: (301)427-8680

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA

86-AI-01

ASTHMA AND ALLERGIC DISEASES CENTERS

P.T. 04; K.W. 0715110, 0715120, 0745020, 0710030, 0765035, 1002019, 1004000, 0710100

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Application Receipt Date: September 15, 1986

I. BACKGROUND INFORMATION

The Asthma and Allergy Branch of the Immunology, Allergic and Immunologic Diseases Program of the National Institute of Allergy and Infectious Diseases (NIAID) sponsors fundamental and clinical research concerned with asthma, allergic and immunologic diseases and with relevant mechanisms of hypersensitivity and inflammation. For this purpose, thirteen Asthma and Allergic Diseases Centers (AADC) are currently funded; support for four is scheduled to conclude in 1987. This request for applications (RFA) is intended to encourage submissions from clinical investigative groups meeting the criteria and requirements for an AADC and to coordinate review of new and renewal applications.

II. RESEARCH GOALS AND SCOPE

The fundamental objective of the NIAID's AADC program is to foster acceleration of the application of knowledge on the immune system emerging from relevant biomedical sciences to clinical hypersensitivity disorders. Especially sought as the requisite factors within a participating institution are quality research in (a) basic science(s), (b) clinical investigation supported by adequate clinical facilities, staff expertise in diagnosis and management of asthmatic and allergic patients, and (c) access to (an) appropriate patient population(s) within a suitable academic/investigative environment designed to favor multidisciplinary interaction.

The scope of the AADC program represents an effort to foster collaborative approaches that will integrate basic concepts in allergy, immunology, pathophysiology, genetics, microbiology, biochemistry, biostatistics, bioinstrumentation, computer science and pharmacology into clinical investigations, which, in addition to the fields of allergy and clinical immunology, may include such areas as dermatology, rheumatology, infectious diseases, pulmonary medicine, hematology and otorhinolaryngology, when a high degree of relevance to immunology exists. Because the role of hypersensitivity and immune-related inflammatory mechanisms has become increasingly evident in disorders of the the skin, immunodermatologic studies are especially encouraged within an AADC. Program objectives are: to encourage collaboration between basic and

clinical scientists; to provide a research environment favorable for such interaction; and to implement clinical application of adequately tested research findings and procedures.

In addition, a feature of the AADC program is the opportunity for directors to implement educational or community activities. Within the research framework of the center, a variety of outreach and demonstration projects may be supported.

### III. MECHANISMS OF SUPPORT

AADC grants are awarded to an institution on behalf of a program director for the support of a broadly based, multidisciplinary, long-term research program which may have a specific objective or basic theme, or may involve the integration of several themes. An AADC generally involves the efforts of groups of investigators who conduct research related to the overall program objective. The grant can provide support for the projects and for certain core resources shared by individuals where the sharing facilitates the total research effort. Each component project supported under an AADC grant is expected to contribute to, and be directly related to, a common theme; the component projects should demonstrate an essential element of unity and interdependence. In fiscal year 1987, the NIAID plans to fund at least four new or competing renewal Asthma and Allergic Disease Center applications, depending on the availability of funds.

### IV. STAFF CONTACT

A more detailed RFA may be obtained from:

Dorothy D. Sogn, M.D.  
Chief, Asthma and Allergy Branch  
Immunology, Allergic and Immunologic  
Diseases Program  
National Institute of Allergy  
and Infectious Diseases  
Westwood Building - Room 752  
Bethesda, Maryland 20892

Telephone (301) 496-8973

Prospective applicants are encouraged to submit a one-page letter of intent that includes a brief synopsis of the proposed research and identification of any other participating institutions. The NIAID requests such letters by June 15, 1986, for the purpose of providing an indication of the number and scope of applications to be received. A letter of intent is not binding. It will not enter into the review of any application subsequently submitted and is not a necessary requirement for application. Letters of intent and inquiries should be directed to Dr. Sogn at the address above.

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA

86-AI-02

CENTERS FOR INTERDISCIPLINARY RESEARCH ON IMMUNOLOGIC DISEASES

P.T. 04; K.W. 0715120, 0710070, 0710075, 0710065, 0765035, 1002015, 1003002, 0710100

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Application Receipt Date: September 15, 1986

I. BACKGROUND INFORMATION

The Clinical Immunology and Immunopathology Branch of the Immunology, Allergic and Immunologic Diseases Program of the National Institute of Allergy and Infectious Diseases (NIAID) supports research on the cellular and molecular mechanisms of immunologic diseases and the application of this knowledge to clinical problems. For this purpose, five Centers for Interdisciplinary Research on Immunologic Diseases (CIRID) are currently funded. This request for applications (RFA) is intended to encourage the development of new applications from collaborative basic science and clinical investigative groups and to coordinate the submission of new CIRID applications.

II. RESEARCH GOALS AND SCOPE

Since its inception in 1978, NIAID's fundamental objective for the CIRID program remains unchanged: acceleration of the application of knowledge on the immune system emerging from relevant biomedical sciences to clinical investigations concerned with asthma, allergic diseases, and immunologically mediated disorders. The scope of these CIRIDs is intended to include studies of all aspects of immunologic responses aimed at defining etiological factors and pathogenetic mechanisms.

Research approaches in this area include basic and clinical immunology studies of acquired and inherited diseases associated with dysfunctions of the immune system (AIDS and Childhood Immune Deficiencies); immunopathology studies of the genetics, cytology, biochemistry, physiology, and pharmacology of the immune system and its disorders (Autoimmune Disorders; Immune Relationships in Diabetes, Endocrine, Neurologic and other disorders); studies of acute and chronic inflammation (mediators, anti-inflammatory agents, chemistry and disorders of complement system, and mechanisms of phagocytosis); and investigations concerned with allergic and hypersensitivity mechanisms (Asthma, Allergic Disorders and Drug Reactions).

In addition, a unique feature of the CIRID program is a requirement to implement educational or community activities. Within the research framework of the Center, a variety of outreach and demonstration projects may be supported. Overall, each component project supported under the CIRID grant, whether for



basic research, clinical research or outreach demonstration projects, is expected to contribute to, and be directly related to, the overall common goal; the projects should demonstrate an essential element of unity and interdependence.

### III. MECHANISMS OF SUPPORT

CIRID grants are awarded to an institution on behalf of a program director for support of a broadly based, multi-disciplinary, long-term research program which may have a specific objective or basic theme, or may involve the integration of several themes. A CIRID generally involves the organized efforts of groups of investigators who conduct research projects related to the overall program objectives. The grant can provide support for the projects and for certain core resources shared by individuals where the sharing facilitates the total research effort. The NIAID plans to award at least two CIRID grants during fiscal year 1987, depending on the availability of funds.

### IV. STAFF CONTACT

A more detailed RFA may be obtained from:

Robert A. Goldstein, M.D., Ph.D.  
Chief, Clinical Immunology and  
Immunopathology Branch, IAIDP  
National Institute of Allergy and  
Infectious Diseases  
National Institutes of Health  
Westwood Building - Room 755  
Bethesda, Maryland 20892

Telephone: (301) 496-7104

Prospective applicants are encouraged to submit a one-page letter of intent that includes a brief synopsis of the proposed research and identification of any other participating institutions. The NIAID requests such letters by June 15, 1986, for the purpose of providing an indication of the number and scope of applications to be received. A letter of intent is not binding. It will not enter into the review of any application subsequently submitted and is not a requirement for application. Letters of intent and inquiries should be directed to Dr. Goldstein at the address shown above.

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA

86-AI-03

PROGRAM PROJECTS ON MECHANISMS OF IMMUNOLOGIC DISEASES

P.T. 34; K.W. 0715120, 0755030, 0710030, 0745055, 0710075, 1002019, 1002015

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Application receipt date: June 15, 1986

I. BACKGROUND INFORMATION

The Clinical Immunology and Immunopathology Branch of the Immunology, Allergic and Immunologic Diseases Program (IAIDP) of the National Institute of Allergy and Infectious Diseases (NIAID) is concerned with cellular and molecular mechanisms of immunologic diseases. This request for applications (RFA) is intended to encourage development of applications from collaborative basic science and clinical investigative groups, and to coordinate the submission of new and renewal program project applications. Eleven such program projects are currently funded; support for three is scheduled to conclude in 1987.

II. RESEARCH GOALS AND SCOPE

Realizing that immunologic diseases and inflammatory disorders constitute major areas of endeavor of the Clinical Immunology and Immunopathology Branch, the goals of these program projects are aimed at understanding the underlying mechanisms of disease and the development of diagnostic measures and approaches to effective prevention, control and treatment of a wide variety of immunologic disorders.

The scope of these program projects is intended to include studies of all aspects of immunologic responses aimed at defining etiologic factors and pathogenetic mechanisms.

Research approaches in this area include clinical immunology studies of acquired and inherited diseases associated with dysfunctions of the immune system, immunopathology studies of the genetics, cytology, biochemistry, physiology, and pharmacology of the immune system and its disorders.

III. MECHANISM OF SUPPORT

Program project grants are awarded to an institution on behalf of a program director for the support of a broadly based, multidisciplinary, long-term research program which has a specific major objective or basic theme. A program project generally involves the organized efforts of groups of investigators, members of

which conduct research projects related to the overall program objective. The grant can provide support for the projects and for certain core resources shared by individuals in a program where the sharing facilitates the total research effort. Each component project supported under a program project grant is expected to contribute to and be directly related to the common theme of the program; they should demonstrate an essential element of unity and interdependence. At least three awards are planned for FY 87.

#### IV. STAFF CONTACT

A more detailed RFA may be obtained from:

Robert A. Goldstein, M.D., Ph.D.  
Chief, Clinical Immunology and  
Immunopathology Branch, IAIDP  
National Institute of Allergy  
and Infectious Diseases  
Westwood Building - Room 755  
Bethesda, Maryland 20892

Telephone: (301) 496-7104

Prospective applicants are encouraged to submit a one-page letter of intent that includes a brief synopsis of the proposed research and identification of any other participating institutions. The Institute requests such letters by March 15, 1986, for the purpose of providing an indication of the number and scope of applications to be received. A letter of intent is not binding. It will not enter into the review of any application subsequently submitted and is not a necessary requirement for application. Letters of intent and inquiries should be directed to Dr. Goldstein at the address shown above.

**ANNOUNCEMENT****AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA****86-AI-04****PROGRAM PROJECTS ON THE BIOLOGY OF THE IMMUNE SYSTEM****P.T. 34; K.W. 0705040, 1002004, 1002008, 0710060, 0710065****NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES**

Application Receipt Date: June 15, 1986

**I. BACKGROUND INFORMATION**

The Immunobiology and Immunochemistry Branch of the Immunology, Allergic and Immunologic Diseases Program of the National Institute of Allergy and Infectious Diseases (NIAID), supports fundamental studies on the structure and function of the immune system to gain an understanding of immune response mechanisms at their basic cellular and molecular levels as they function in health and disease. Program Projects on the Biology of the Immune System represent an award mechanism which the Branch has employed to meet this objective. They are intended to expand the scope of, and eventually replace, the current Program Projects in Lymphocyte Biology which utilize an integrated multidisciplinary approach for basic biologic studies of immunologically-functional lymphocyte populations. Seven such program projects are currently funded; support for two is scheduled to conclude in 1986. This request for applications (RFA) is intended to encourage the development of proposals from collaborating investigators and to coordinate the submission and review of new and renewal program project applications.

**II. RESEARCH GOALS AND SCOPE**

The goal of these Program Projects is the attainment of a complete understanding of the structure and function of the immune system and its products, its interaction with other body systems, and full knowledge of the genetic and other factors which regulate its development and function. An ultimate practical application of this information is the use of selected cloned cells of the system or their products for the clinical care or reconstitution of immunodeficient individuals, to alleviate allergic states, to provide resistance to life-threatening infections and to correct aberrant or defective immunoregulatory mechanisms.

The scope of these program projects includes studies of every facet of the immune response, ranging from the initial step of antigen recognition to the final elaboration of immunologically distinctive products of specific immunocytes. Research currently supported by this mechanism was designed to greatly expand knowledge of the morphologic and functional heterogeneity of lymphocyte populations and to develop the capability for identification and selection of lymphocyte subpopulations with specific immune reactivity or antigenic composition, for hybridization of such populations and for selective production of specific, biologically-active, lymphocyte products. Continuation of such studies is

anticipated and appropriate, as are similar studies of macrophages, other accessory and effector cells, and activation, differentiation and regulation of the immune system. Also relevant are investigations on interactions and influences of other body systems with the immune system.

### III. MECHANISM OF SUPPORT

Program project grants are awarded to an institution on behalf of a program director for the support of a broadly based, multidisciplinary, long-term research program which has a specific major objective or basic theme. A program project generally involves the organized efforts of groups of investigators who conduct research projects related to the overall program objective. The grant can provide support for the projects and for certain core resources shared by individuals where the sharing facilitates the total research effort. Each component project, supported under a program project grant, is expected to contribute and be directly related to a common theme; the projects should demonstrate an essential element of unity and interdependence. At least two awards are planned for FY 87.

### IV. STAFF CONTACT

A more detailed RFA may be obtained from:

Joseph F. Albright, Ph.D.  
Chief, Immunobiology and Immunochemistry  
Branch, IAIDP  
National Institute of Allergy and  
Infectious Diseases  
Westwood Building - Room 757  
National Institutes of Health  
Bethesda, Maryland 20892

Telephone: (301) 496-7551

Prospective applicants are encouraged to submit a one-page letter of intent that includes a brief synopsis of the proposed research and identification of any other participating institutions. The NIAID requests such letters by March 15, 1986, for the purpose of providing an indication of the number and scope of applications to be received. A letter of intent is not binding. It will not enter into the review of any application subsequently submitted and is not a necessary requirement for application. Letters of intent and inquiries should be directed to Dr. Albright at the address shown above.

**ANNOUNCEMENT****ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ASPECTS OF ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) - MH-86-09****P.T. 34; K.W. 0715120, 0710105, 0404000, 0404009, 0755030, 0411005****ALCOHOL, DRUG, ABUSE, AND MENTAL HEALTH ADMINISTRATION****I. AREAS OF INTEREST**

In an attempt to understand and reduce the adverse consequences of this disease, the component institutes of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) are interested in supporting AIDS research.

**A. National Institute of Mental Health (NIMH)**

Health care professionals recognize that AIDS exacts an emotional as well as a physical toll. Anxiety and depression, often accompanied by guilt, are most common. There is no vaccine for AIDS, nor is there any effective treatment.

Psychological and neuropsychiatric problems, which are important consequences of the disease, may also represent risk factors. While the mechanism of the virus and its action on the central nervous system (CNS) are not understood, preliminary data suggest that CNS involvement may occur very early and could affect the outcome. In adults, this characteristically manifests itself as a subacute dementia accompanied by motor dysfunction, sometimes described as AIDS dementia. In children with AIDS, a similar encephalopathy is also noted.

NIMH is particularly interested in research in the following areas:

- o Psychiatric, neuropsychological, behavioral, and psychosocial aspects of AIDS; the role of mood, cognition, and behavior as risk factors for the illness.
- o The relationship between psychological behavioral states and the immune endocrine systems as they relate to AIDS or ARC.
- o The progression of AIDS dementia in adults and developmental delay in children.
- o Psychological reactions to receiving either a positive or negative result on the HTLV-III blood test; immunologic and/or endocrinologic changes as they relate to behavior are encouraged.
- o Changes in high-risk sexual behavior patterns.
- o Behavioral and psychosocial aspects of AIDS in minority populations, especially Blacks and Hispanics, who have been identified at high-risk for HTLV-III infection.

- o Assessments of interventions to reduce psychiatric or psychological symptoms in AIDS patients showing behavioral and psychiatric problems.

B. National Institute on Drug Abuse (NIDA)

Approximately 27 percent of all AIDS cases involve people who have used drugs intravenously. Heterosexual drug abusers are of particular concern because they may represent an avenue of the HTLV-III infection to the general population.

NIDA is particularly interested in research in the following areas.

- o Incidence, prevalence, etiology, risk factors, natural history, general health practices, and other epidemiologic aspects of HTLV-III infection, AIDS, and ARC among drug abusers.
- o Social networks of drug abusers to explore potential vectors of transmission of the disease from this risk group to the general population.
- o HTLV-III infection, AIDS, and ARC in pregnant drug abusers and in children of drug abusers.
- o Drug-using patterns in prostitutes.
- o Preclinical and clinical effects of abused drugs (through any route of administration) and inhalants on immune function and as possible co-factors in the expression of AIDS.
- o Studies to develop techniques to prevent the spread of HTLV-III infection in drug abusers.
- o The differential clinical courses of patients with AIDS who have a history of homosexual behavior as compared to those who have a history of intravenous drug use or both high-risk behaviors.

C. National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Research has shown that alcoholics have an increased susceptibility to infection, the immune function being compromised by chronic alcohol abuse. Consequently, the morbidity and mortality rates associated with infectious disease among alcoholics are higher than among nonalcoholics. The concern over AIDS serves as a catalyst to reemphasize the importance of research on the effects of alcohol consumption on immunologic functioning and to investigate further the role of alcohol as a potential co-factor in the development of AIDS.

NIAAA is particularly interested in research in the following areas:

- o Epidemiology of drinking practices of persons with AIDS and ARC, persons testing positive for the HTLV-III infection, and persons in high-risk groups for infection; and the relation of these drinking practices to the acquisition of infection and disease progression.

- o Incidence and prevalence of HTLV-III antibodies, ARC, and AIDS among alcoholics, especially those who are not intravenous drug users.
- o Use of animal models to determine the potential role of alcohol as a co-factor in the development of AIDS.
- o Mechanisms underlying the role of alcohol as a factor in cell-mediated immunity and its potential effects on the acquisition of HTLV-III reactivity and the development of AIDS.
- o Differential immunosuppressive effects of acute intoxication as distinguished from the chronic consumption of alcohol.

## II. REVIEW

Applications will be reviewed in accordance with the standard review procedures of the Public Health Service. Applications in response to this announcement should be submitted by February 1, 1986, for funding consideration during Fiscal Year 1986. After that, applications will be reviewed according to the regular review schedule.

Criteria for review of applications will include:

- o Significance and originality from a scientific or technical standpoint of the goals of the proposed research.
- o Qualifications and experience of the principal investigator and proposed staff.
- o Potential contributions in areas covered by the objectives and scope of this announcement.
- o Adequacy of the conceptual and theoretical framework for the research.
- o Evidence of familiarity with relevant research literature.
- o Scientific merit of the research design, approaches, and methodology.
- o Evidence of availability of research subjects appropriate to the goals of the project.
- o Adequacy of the data analysis plan.
- o Adequacy of the existing and proposed facilities and resources.
- o Appropriateness of the budget, staffing plan, and time frame to complete the project.
- o Adequacy of proposed procedures for protecting human subjects.



### III. AWARD

In the decision to fund applications, the following will be considered:

- o Quality of the proposed project as determined during the review process.
- o Availability of funds.
- o Balance among research areas of the announcement.

### IV. ADDITIONAL INFORMATION

For further information, terms and conditions of support, and a copy of the complete announcement, applicants should contact:

Ellen Simon Stover, Ph.D.  
Deputy Director  
Division of Basic Sciences  
National Institute of Mental Health  
Room 11C-06  
Telephone: (301) 443-3563

Albert Pawlowski, Ph.D.  
Chief, National Centers and Special Programs Branch  
Division of Extramural Research  
National Institute of Alcohol Abuse and Alcoholism  
Room 14C-20  
Telephone: (301) 443-1273

Harold M. Ginzburg, M.D.  
Special Assistant to the Acting Director  
National Institute on Drug Abuse  
Room 10-16  
Telephone: (301) 443-6480

The mailing address for these individuals is:

Parklawn Building  
5600 Fishers Lane  
Rockville, Maryland 20857

**ANNOUNCEMENT****RESEARCH GRANTS ON THE RELATIONSHIP BETWEEN SEIZURES AND SLEEP****P.T. 34; K.W. 0715060, 1002030, 0710050****NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE**

Application Receipt Dates: October 1, February 1, and June 1.

**I. INTRODUCTION**

The Epilepsy Branch, Convulsive, Developmental, and Neuromuscular Disorders Program, National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) encourages the submission of research project grant applications (R01) related to the relationship between epileptic seizures and sleep.

**II. BACKGROUND**

Both epileptic seizures and sleep are characterized by changes in cerebral activation and inhibition. The responses of cortical neurons are modulated by subcortical regulation. Studies of excitability could provide information on the pathogenesis of epilepsy and on changes in cerebral activation during various sleep stages.

Epileptic seizures frequently occur during sleep. The incidence and character of generalized epileptic discharges change during different sleep stages. The use of sleep as an activation technique in routine EEG recordings is based on an increase in focal spikes during stages I and II of nonREM sleep; a decrease occurs during REM sleep. Sleep deprivation also increases seizure frequency and paroxysmal EEG activity. Limbic epileptiform activity may be selectively activated by REM sleep. The correlation between epileptic phenomena and certain mental activity states of both wakefulness ("epileptic dreamy states") and sleep (dreaming) remains undefined. Further study could advance our understanding of higher nervous system function during these mental states.

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This program is described in the Catalog of Federal Domestic Assistance No. 13.853, Clinical Basis Research, NINCDS. Awards will be made under the authority of the Public Health Service Act, Title IV, Section 301 (Public Law 78-410, as amended; 42 USC 241) 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.

Nocturnal epileptic seizures may disrupt normal sleep cycles, leading to further activation. Modifying the sleep-wake pattern of patients with nocturnal seizures may be of therapeutic benefit. Circadian rhythms also influence epileptic phenomena during sleep, but their influence is poorly understood.

In clinical practice, the differentiation between nocturnal episodes of nonepileptic etiology and epileptic seizures may be difficult. Overnight recordings using combined infrared video monitoring and polygraphic telemetry have only been used to a limited extent to characterize nocturnal ictal events. There is controversy regarding the optimal technology for these studies. A useful classification of nocturnal cerebral episodes may be possible.

### III. RESEARCH GOALS

The goal of this research program is to explore the relationship between epileptic phenomena and different states of sleep and arousal. The research scope of this program encompasses both animal and human studies, utilizing a variety of experimental approaches and methods.

Examples of areas of potential research include the mechanisms for variable epileptic activation during different sleep stages; the nature of sleep disorders in epileptic patients; the effects of nocturnal seizures on cognitive performance; and the influence of circadian rhythms on seizures and sleep disorders. Electroclinical characterization and classification of nocturnal cerebral episodes would allow more accurate diagnosis and treatment. Research efforts directed to these and other issues concerning the relationship between epileptic seizures and sleep are requested.

### IV. MECHANISM OF SUPPORT

Support for this program will be through the traditional investigator-initiated research project grant-in-aid.

### V. APPLICATION AND REVIEW PROCEDURES

Applications should be prepared on Form PHS 398 according to instructions contained in the application kit. Application kits are available from most institutional business offices or may be obtained from the Division of Research Grants at the address given below. Check "yes" in item two on the face sheet of the application and type **"Grants Related to the Relationship Between Seizures and Sleep"** in the space provided.

Applications should be responsive to the program announcement and the goals of NINCDS. They will be judged on scientific merit and program relevance in accordance with NIH policy and procedures involving peer review. An initial review will be made by an appropriate study section of the Division of Research Grants. A second level of review will be made by the National Advisory Neurological and Communicative Disorders and Stroke Council.

Deadlines for the receipt of applications are October 1, February 1, and June 1.

The original and six copies of the application should be mailed to the following address:

Division of Research Grants  
National Institutes of Health  
Westwood Building - Room 240  
5333 Westbard Avenue  
Bethesda, Maryland 20892

For further information, applicants may contact:

Philip H. Sheridan, M.D.  
NINCDS, CDNDP, EB  
National Institutes of Health  
Federal Building - Room 114  
7550 Wisconsin Avenue  
Bethesda, Maryland 20892

Telephone: (301) 496-1917

ANNOUNCEMENT

**EPIDERMOLYSIS BULLOSA AND THE BIOLOGY OF THE BASEMENT MEMBRANE ZONE**

**P.T. 34; K.W. 0715185, 0790005, 0715210, 1002019, 0755030, 0785165**

**NATIONAL INSTITUTE OF ARTHRITIS, DIABETES, AND DIGESTIVE AND KIDNEY DISEASES**

The Skin Diseases Program of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases (NIADDK) is encouraging the submission of applications for research grants in epidermolysis bullosa (EB) and in studies of the basic biology of the cutaneous basement membrane zone (BMZ).

Epidermolysis bullosa is a group of hereditary diseases in which skin and other epithelial surfaces, including the mucous membrane of the gastrointestinal and respiratory tracts, form blisters and become denuded after physical trauma of varying degree. In many cases, symptoms of the diseases resemble severe burns. As many as 20, possibly genetically distinct, forms of EB have been described. In its mildest form, blisters of EB may be confined to hands and feet. The dystrophic forms of EB, however, may show widespread blistering and skin erosions which heal slowly, if at all; and may result in severe pain, scarring, deformities, and contractures; malnutrition and anemia; and gastro-intestinal problems, corneal erosions, and dental problems. Severe forms of the disease may manifest themselves in utero and can result in premature death, often in infancy or childhood.

The basic underlying cause for the sensitivity of epidermolysis bullosa patients to physical trauma is unknown; it may differ in various genetic forms of the disease. It is thought, however, that the basic cause may involve either a structural defect in proteins or other components that bind epidermis to the underlying dermis, or an abnormal enzyme that degrades one or more of those structural elements. As a result, the attachment between epidermis and dermis is weakened.

Since the initial pathologic changes of EB appear to occur in the basement membrane zone, the NIADDK seeks studies aimed at achieving a better understanding of pathophysiologic mechanisms and/or structural abnormalities which contribute to the onset of EB, as well as studies to gain further insight into the basic biology of the basement membrane zone. In addition to its clear importance to EB, research investigation of the basement membrane zone is directly relevant to other important areas of biomedical research, including burns, wound healing, development of artificial

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This program is described in the Catalog of Federal Domestic Assistance No. 13.846, Arthritis, Musculoskeletal and Skin Diseases. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 78-410, as amended; 42 USC 241) 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.

skin, the structure-function relationship of collagen and collagenolysis and their genetic control, and the biochemical basis of genetic and congenital abnormalities of the BMZ in the adult and at prenatal and subsequent developmental stages. Such determinations should provide the information on the underlying cause and ontogeny of different forms of epidermolysis bullosa on which alleviation, prevention, and treatment of these diseases could be based. Research proposals are encouraged that utilize research advances in genetics, pathology, cell and developmental biology, biochemistry, and immunology as they relate to various types of EB and to the biology of the basement membrane zone.

#### Method and Criteria of Review

**Assignment of Applications** - Applications will be received by the NIH's Division of Research Grants (DRG) referred to an appropriate initial review group for scientific review, and assigned to the NIADDK for possible funding.

**Review Procedures** - Applications in response to this announcement will be reviewed in accord with the National Institutes of Health (NIH) peer review procedures. They will first be reviewed for scientific and technical merit by a review group composed mostly of non-Federal scientific consultants. Following initial review, the application will be evaluated for program relevance by an appropriate National Advisory Council or Board. Review criteria customarily employed by the National Institutes of Health for regular research grant applications will prevail. Approved applications will compete for available funds with other approved grant applications assigned to the NIADDK.

**Deadline** - Applications will be accepted in accordance with the announced receipt dates for new applications (see receipt dates and review schedule in application kits).

**Method of Applying** - Applications for research grants should be submitted on form PHS 398, which is available in the business or grants and contracts office at most academic and research institutions. The phrase, **"PREPARED IN RESPONSE TO RESEARCH GRANTS ANNOUNCEMENT IN THE AREA OF EPIDERMOLYSIS BULLOSA AND BASEMENT MEMBRANE ZONE BIOLOGY"** should be typed across the top of the first page of the application.

The original and six copies of the application should be sent or delivered to:

Applications Receipt Office  
Division of Research Grants  
National Institutes of Health  
Westwood Building - Room 240  
Bethesda, Maryland 20892

For further information, investigators are encouraged to contact the following program director:

Alan N. Moshell, M.D.  
Skin Diseases Program Director  
National Institute of Arthritis, Diabetes,  
and Digestive and Kidney Diseases  
National Institutes of Health  
Westwood Building - Room 405  
Bethesda, Maryland 20892

Telephone: (301) 496-7326

**ANNOUNCEMENT**

**INTERACTIONS AMONG MICRONUTRIENTS IN THE PREVENTION OF  
EXPERIMENTAL MAMMARY CANCER**

**P.T. 34; K.W. 0715035, 0710095, 0745055, 0785050**

**DIVISION OF CANCER PREVENTION AND CONTROL**

**NATIONAL CANCER INSTITUTE**

Application Receipt Dates: February 1, June 1, October 1

The Division of Cancer Prevention and Control (DCPC) of the National Cancer Institute (NCI), through the Organ Systems Program (Breast Cancer), seeks applications for studies to evaluate the interactions of micronutrients that have been observed to inhibit mammary tumorigenesis. The aim would be to define a unique set or multiple sets of micronutrients that inhibit mammary carcinogenesis to a greater extent than do the individual nutrients alone. The hypothesis to be tested is that "the preventive effect of low doses of two or more micronutrients in combination is greater than the effect of high doses of the same nutrients given singly."

**I. BACKGROUND**

There is by now great interest in the concept of nutritional prevention of cancer. Evidence from experimental carcinogenesis in animal models indicates that a diet supplemented with large doses of single micronutrients, such as specific vitamins, antioxidants, or trace elements, can inhibit both viral and chemical carcinogen induced mammary cancer. The most promising of those explored thus far appear to be selenium and retinoids, and others are open to exploration; in addition, certain phenolic antioxidants used as food additives have been observed to have favorable chemopreventive effects. It is now timely to examine the concept that low doses of several such micronutrients used together may be more effective and desirable than high doses of single micronutrients. Experiments thus far on using two or more factors together have been relatively few, but the results are strongly suggestive of synergistic effects(1-3), e.g., vitamin E has been found to be synergistic with selenium at levels of vitamin E which, alone, are not inhibitory(3).

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This program is described in the Catalog of Federal Domestic Assistance No. 13.393, Cancer Prevention Research. Awards will be made under authorization of the Public Health Service Act, Title III, Section 301(c) and Section 402 (Public Law 78-410, as amended; 42 USC 241; 42 USC 282) 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.

1. Thompson HJ, Meeker LD, and Becci PJ. Effect of Combined Selenium and Retinyl Acetate Treatment on Mammary Carcinogenesis. *Cancer Res.* 41: 1413-1416, 1981.
2. Ip C and Ip MM. Chemoprevention of Mammary Tumorigenesis by a Combined Regimen of Selenium and Vitamin A. *Carcinogenesis* 2: 915-918, 1981.
3. Horvath PM and Ip C. Synergistic Effect of Vitamin E and Selenium in the Chemoprevention of Mammary Carcinogenesis in Rats. *Cancer Res.* 43: 5335-5341, 1983.

## II. RESEARCH GOALS

The project would have the ultimate aim of defining one or more sets of two to five micronutrients which, when given together, significantly reduce or block experimental mammary tumorigenesis in animal model systems over an extended period of time ( $\geq 1$  year). Good animal models exist for both viral and chemical mammary tumorigenesis, and any of these are feasible and appropriate test systems for this study. Particular program interest in this area addresses such questions as:

- o Which micronutrients are most promising, what range of levels for each achieves maximum preventive effects in combination with others, and, from comparison with the preventive effects of these nutrients administered singly at comparable levels, whether interactions are additive, synergistic, or possibly antagonistic.
- o For each nutrient, how levels that give maximum preventive effect compare with the minimum toxic level, and whether there are any toxicity potentiations among the nutrients.
- o What regimen of micronutrient administration (route, timings, duration, etc.) in relation to exposure to the carcinogenic agent, is needed to maximize preventive effects, and whether any particular regimen nullifies such effects; further, whether the optimal regimen is the same for all nutrients in the combination.
- o Whether there are further interactions of micronutrients with hormonal factors in mammary tumorigenesis and any prevention synergisms with the hormones or anti-hormones to which mammary tissue and tumors respond.
- o Whether the micronutrients tested exert preventive effects by similar or by quite different mechanisms of action (effects on carcinogen metabolism, DNA repair or other specific enzymatic processes, hormonal intracellular action, immune response, to name some that have been postulated, or others); understanding of the mechanisms of action of many micronutrients is at present minimal, and studies that go beyond the necessary, systematic data collection to probe the mechanisms of action and of interaction are particularly invited.
- o Interactions with level or type of dietary fat could also be explored; in any case, level and type of fat should be controlled as an important and potentially confounding variable.



### III. MECHANISM OF SUPPORT

Support for this program will be through the traditional research grant. Policies that govern research grant programs of the National Institutes of Health will prevail.

### IV. APPLICATION AND REVIEW PROCEDURES

Applications in response to this announcement will be reviewed in accordance with the usual Public Health Service peer review procedures for research grants (Study Section). Review criteria include the significance and originality of the research goals and approaches; feasibility of the research and adequacy of the experimental design; training, experience, research competence, and dedication of the investigator(s); adequacy of available facilities; provision for the humane care of animals; and appropriateness of the requested budget relative to the work proposed. Following Study Section review, the application will be evaluated for program relevance by the Organ Systems Program, DCPC, NCI. Funding decisions will be based on Initial Review Group and National Cancer Advisory Board recommendations, program relevance, and availability of appropriate funds.

Applications should be submitted on form PHS-398, 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 dates for new applications on an indefinite basis:

February 1

June 1

October 1

The phrase **"RESPONSE TO NCI PROGRAM ANNOUNCEMENT: INTERACTIONS AMONG MICRONUTRIENTS IN MAMMARY CANCER PREVENTION"** should be typed on line 2 of the face page of the application. The original and six copies should be sent or delivered to:

Grant Application Receipt Office  
Division of Research Grants  
National Institutes of Health  
Westwood Building - Room 240  
5333 Westbard Avenue  
Bethesda, Maryland 20892-4500

In order to alert the Organ Systems Program to the submission of responses to this request, copies of the face page and summary page of applications should be forwarded under separate cover to:

Dr. Elizabeth P. Anderson  
Breast Cancer, Organ Systems Section, CCB  
DCPC, National Cancer Institute  
Blair Building, Room 717  
National Institutes of Health  
Bethesda, Maryland 20892-4200

Telephone: (301) 427-8818

## ANNOUNCEMENT

### SURGICAL ONCOLOGY RESEARCH TRAINING GRANTS

P.T. 44; K.W. 0785140, 0785210, 0710030, 0720005, 0745055

### NATIONAL CANCER INSTITUTE

#### I. INTRODUCTION

The surgeon's role in cancer research and treatment necessitates familiarity with the principles of clinical trials methodology, medical oncology, radiation oncology and preventive oncology. Furthermore, the nature of the surgeon's task and the increasing sophistication in cancer research and treatment has created the need for flexibility in the preparation of those seeking careers in academic surgery.

Recognizing this need, an adaptable National Research Service Award (NRSA) surgical oncology research training grant opportunity has been developed cooperatively by the Division of Cancer Treatment (DCT) and the Division of Cancer Prevention and Control (DCPC) of the National Cancer Institute. These grants will be awarded and administered by the Cancer Training Branch of DCPC. They will fund programs for long-term research training in either basic or applied research. Also, they can provide didactic opportunities for the research trainees in the general principles of clinical research, medical oncology, radiation oncology, and preventive oncology. It is important that attention be given to recruiting individuals from minority groups that are underrepresented in the biomedical sciences. Grants will be made to successfully competing institutions for a renewable project period of up to five years. The review criteria are the usual ones for any NRSA T32 (Institutional) Research Training Grant. The initial review of these applications will be performed by the Cancer Research Manpower Review Committee which reviews all T32 applications assigned to the National Cancer Institute. Secondary review will be conducted by the National Cancer Advisory Board.

#### II. ELIGIBILITY

This grant is an institutional research training grant available on a competitive basis to domestic institutions under the terms of the National Research Service Act of 1974. Trainees must be United States citizens or nationals, or must have been officially admitted to the United States as permanent residents. Applicant institutions must conform to the terms of the NIH policy announcement "Minority Trainees Under Institutional NRSA (T32s)" which is expected to be published soon.

\* Under the authority of section 472 of the Public Health Service Act (42 USC 2891-1) as amended, the National Institutes of Health (NIH), the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA), and the Division of Nursing, Health Resources Administration (DN) provide National Research Service Awards to individuals for training in specified areas of biomedical and behavioral research at public and non-profit private institutions including Federal laboratories.

### III PROGRAM CONTENT

An applicant institution should propose a program in accordance with one of these possible training plans:

- Plan 1. Two years of research training, which should entail two full years of research by trainees and which may include patient care activities required to maintain the trainee's surgical proficiency. In no case may this activity require more than 20 percent of the trainee's time.
- Plan 2. Three years of research training shaped in accordance with the guidelines in Plan 1, or two years of research coupled with one year of instruction in medical oncology, radiation oncology, preventive oncology, clinical trials methodology, epidemiology and biostatistics.
- Plan 3. Four or five years of research training for each trainee\* divided into two parts. Part I would be one to two years long and would be offered between the first and second, or the second and third years of the regular surgical residency program. This one or two year period would provide full-time research training at the bench. Part II should be scheduled after specialty training is complete. It would be three years long, with two years devoted to bench research training. This should be constructed so that the trainee will have an integrated training experience over the four years devoted to bench research training. That is, the research training undertaken in Part II of this plan should be an extension of that experienced in Part I, or should at least be clearly related to it. A trainee could elect to take Part I, Part II, or both parts of this training plan. To present this plan schematically:

A. Part I - Bench research training (years one and two):

1. Duration - two years recommended;
2. In-depth research training in a cancer-related investigation. Any science relevant to cancer is acceptable.
3. One hundred percent of the trainee's time will be devoted to research training.\*\*
4. While it is not a primary purpose of this program to enable a trainee to earn a master's or doctor's degree, he/she may matriculate in a degree-granting program incidental to the training.

\* The three-year limit placed on an individual's postdoctoral research training by the NRSA is waivable on sufficient justification. National Institutes of Health (NIH) policy favors approval of such requests from physicians who require more than three years to prepare for academic careers.

\*\* Where the terms "full year of research" or "full-time research" are used, this does not prohibit the trainee from performing a nominal amount of surgery to maintain his/her surgical proficiency.

5. Research preceptors must be qualified to train researchers. This means they must have significant publication records and hold peer-reviewed research grants, preferably from NIH.
- B. Part II - Educational activities and further bench research training (years three through five):
1. Up to one year of educational activities is suggested. These activities should consist of training and education in medical oncology, radiation oncology, preventive oncology, clinical trials methodology, epidemiology and biostatistics.
  2. Research training - two years bench research training under a qualified preceptor.
  3. Other activities - trainees may participate in a reasonable amount of teaching and related activities provided they spend at least 40 hours per week on the research training grant, and provided further that such other activities do not detract from the quality of the training.

### III. Review Criteria

Applicants should address the following criteria which will be employed by the Cancer Research Manpower Review Committee in evaluating applications. They are the same general criteria used for rating other NRSA applications, but have been expanded to take into account the special emphases in the new program.

1. Scientific merit of the long term training program in laboratory or clinical research including program objectives and program design.
2. Breadth and appropriateness for trainees of educational activities of clinical research, medical, radiation and preventive oncology, and epidemiology and biostatistics.
3. Scientific environment and active resources of the applicant institution including the research support.
4. The applicant's ability to attract high-caliber trainees, including in particular, a description of the steps to be taken for recruitment of individuals from minority groups in line with the new NIH NIH guidelines being issued for National Research Service Awards (NRSA).
5. For four-year or five-year programs, integration and coherence of the separated training segments.
6. Qualifications of research preceptors and their previous research training experience.

7. Extent of commitment of the institution to the proposed training program.

Applications will be received September 10, January 10, and May 10 of each year. When you mail the required number of copies of your application to the NIH Division of Research Grants (4), please mail two (2) copies to NCI:

Referral Officer  
Grants Review Branch  
Division of Extramural Activities  
National Cancer Institute  
Westwood Building - Room 826  
Bethesda, Maryland 20892-4500

If you have any questions about this program, please contact:

Program Director  
Cancer Training Branch, DCPC  
National Cancer Institute  
Blair Building - Room 424  
Bethesda, Maryland 20892-4200

Telephone: (301) 427-8898

## ANNOUNCEMENT

### SMALL GRANT PROGRAM

P.T. 34; K.W. 0710030, 0785040, 0785035

### NATIONAL INSTITUTE OF DENTAL RESEARCH

#### I. PURPOSE

The National Institute of Dental Research (NIDR) Small Grant Program is intended to provide limited support for meritorious dental research projects in all program areas which include, but are not limited to, the following purposes:

- To conduct research which determines the feasibility of a research project. This may be described as the conduct of pilot studies or venture research.
- To develop and test new techniques and procedures for solving a particular research problem.
- To carry out a small clinical research project.
- To analyze existing data.

#### II. ELIGIBILITY

Investigators from any scientific discipline and at any stage of their career may apply for a Small Grant. These awards are appropriate for new investigators and those changing areas of research or resuming research careers. Participation in this program by minority and women investigators and those located at institutions not traditionally associated with oral health research is encouraged.

#### III. TERMS AND CONDITIONS OF THE AWARD

The proposed project may be related to, but the aims must be distinctly different from those of pending grant applications or funded research projects. The request may not be used to supplement projects currently supported by Federal or non-Federal funds, or to provide interim support for projects under review by the Public Health Service.

Applicants may request up to \$15,000 (direct costs) for a one-year grant period. Successful applicants who require additional time to perform the proposed research may request extensions of the grant period without additional funds. This grant is not renewable; however, grantees under this award are encouraged to apply for a regular Research Project Grant to maintain continuity in their studies.

#### IV. APPLICATION PROCEDURE

Applications may be submitted at any time (i.e., there are no specific receipt deadline dates for this program) on form PHS 398. Forms are available at most institutional business offices or from the following:

Office of Grants Inquiries  
Division of Research Grants  
National Institutes of Health  
Bethesda, Maryland 20892

For the NIDR Small Grant Program, applicants should not utilize the mailing label provided in form PHS 398, but instead send an original plus 6 copies to:

National Institute of Dental Research  
Scientific Review Branch  
Westwood Building - Room 507  
5333 Westbard Avenue  
Bethesda, Maryland 20892

Telephone: (301) 496-7658

Specific supplementary instructions required for use by applicants to the NIDR Small Grant Program should be obtained from the above NIDR address.

#### V. ALLOWABLE EXPENSES

All requested funds, and in particular those requested for travel, equipment, and salaries for professional personnel, should be strongly justified. Support may be requested for the following categories:

- Supplies
- Travel to attend a domestic meeting or to visit another laboratory for the purpose of gathering more information or to learn a new technique or procedure relevant to the application.
- Small items of equipment. The purchase of large pieces of equipment is discouraged.
- Salary for technical personnel. Salary of the principal investigator will be allowed only with the strongest of justifications.

#### VI. REVIEW AND AWARD

A special NIDR review committee will determine the overall quality and scientific merit of each Small Grant application. Applications will be evaluated with respect to the following criteria: the significance and scientific merit of the proposed project, its characterization as an innovative and/or pilot project which provides a basis for more extended research. Additional consideration will be given to the investigator's potential for carrying out the project, the time commitment of the investigator, the adequacy of the facilities and the adequacy of the justifications presented for budget requests.

The application will be recommended for approval and assigned a priority score or recommended for disapproval. All applications will receive a second level review and be considered for funding on an accelerated schedule as follows:

Receipt Date	Review Committee Meeting	Secondary Review	Earliest Possible Begin Date
Continuous (see note below below*)	Feb.-March June-July Oct.-Nov.	May-June Oct.-Nov. Jan.-Feb.	July December March

\* There are no specific receipt deadlines for applications for NIDR Small Grants. Applications will be accepted on a continuous basis. As a general guide, applications should be submitted 6 months prior to the funding date for which they are intended. Awards for applications judged to have high scientific merit will be made as soon after the secondary review as possible.

For program information, contact the office of:

Deputy Director for Extramural Programs  
National Institute of Dental Research  
Westwood Building - Room 504  
Bethesda, Maryland 20892

Telephone: (301) 496-7748