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The 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.
Supplements, printed on yellow paper, are published by the respective
awarding units concerning new projects, solicitations of sources, and
requests for proposals.
The Epidemiology of Diabetes

National Eye Institute
National Heart, Lung, and Blood Institute
National Institute of Allergy and Infectious Diseases
National Institute of Arthritis, Metabolism, and Digestive Diseases
National Institute of Child Health and Human Development
National Institute of Dental Research
National Institute of Neurological and Communicative Disorders and Stroke
National Institute on Aging

Research Grants
Individual National Research Service Awards (Fellowships)
Special Emphasis Research Career Awards

Diabetes mellitus is a major public health problem in the United States today. Approximately 5 million Americans are known to have the disease, and it is estimated than an equal number are undiagnosed or will develop diabetes. It is the fifth leading cause of death by disease, accounting for 35,000 deaths in 1976, and is a contributory factor in at least another 90,000 deaths each year. Diabetes is a major risk factor for the development of cardiovascular disease and a prime cause of end stage renal failure. Blindness is 25 times more common in the diabetic than in the nondiabetic population. About 1.5 million women in their childbearing years are diabetic, and perinatal losses in their pregnancies are five times higher than in normal pregnancies; congenital abnormalities are three times the expected rate. Diabetes is a leading cause of visits to physicians, hospitalizations, and disability in the United States.

Despite the enormity of the public health impact of diabetes and considerable research on diabetes, our ability to prevent or control the disease is unsatisfactory. The etiology of diabetes remains unknown, although genetic, immunologic, virologic, and nutritional hypotheses have been invoked. In addition, reliable quantitative data on the extent and nature of diabetes in discrete populations, and the factors which contribute to the development of its complications in various epidemiologic groups, is lacking.

In order to fully address these and related issues in diabetes, epidemiologic research is needed to complement the ongoing clinical and basic research sponsored by the NIH. In recognition of this, the above-named Institutes invite applications for research grants and individual National Research Service Awards in the epidemiology of diabetes, and in the study of the prevalence and incidence of specific complications in well-defined populations of diabetics. In addition, the NIAMDD and NHLBI encourage young clinicians to apply for Special Emphasis Research Career Awards to develop their research capabilities in the epidemiology of the cardiovascular, endocrinologic, and metabolic aspects of diabetes.
The award of grants pursuant to this program announcement is contingent upon receipt of appropriated funds for this purpose.

RESEARCH GRANTS

Many needs and opportunities for epidemiologic research exist in diabetes. Among these are studies on the etiology of diabetes, including its nutritional, environmental, virological, immunological, and genetic components; epidemiologic approaches to the natural history of the disease; assessment of risk factors for diabetes; the causes of differences between populations and groups in the frequency of development and extent of the complications of diabetes, including cardiovascular, renal, neurologic, ocular, dental, and pregnancy complications; epidemiologic assessment of the relationship between obesity and diabetes; assessment of changes of glucose tolerance with aging; the relationship of gestational diabetes to subsequent overt diabetes; the relationship of diabetes to the loss of teeth through periodontal disease; evaluation of the socioeconomic costs of diabetes and its complications; and the problems of patient compliance in this chronic disease. These are only a few of the areas where epidemiologic investigations are needed; they are not meant to be restrictive and are cited for illustrative purposes only. Research that utilizes or builds on existing population-based or clinic-based data sets, such as those already collected for studies on diabetes or other diseases, or the Health Interview and Health and Nutrition Examination surveys of the National Center for Health Statistics, is particularly encouraged.

INDIVIDUAL NATIONAL RESEARCH SERVICE AWARDS (postdoctoral fellowships)

These awards are made to individuals, for the support of full-time research training, who have completed the requirements for the M.D., Ph.D., D.D.S., or equivalent degree by the time of the award. Applicants must be citizens or non-citizen nationals of the U.S. or have been admitted to the U.S. for permanent residence. They must have arranged for an appointment at a U.S. or foreign nonprofit private or public institution and have been accepted by a sponsor who will supervise his/her training and research experience. Individuals trained in epidemiology are particularly encouraged to obtain research training at an institution which has a well-established clinical program in diabetes and/or its complications. Conversely, individuals trained in diabetes-related clinical areas are encouraged to apply for postdoctoral fellowship support to obtain research experience in epidemiologic methods which can be applied to diabetes and its complications.

SPECIAL EMPHASIS RESEARCH CAREER AWARD

This new award, which provides both salary support and funds for the conduct of research, is specifically designed to provide qualified clinicians with the opportunity to develop research skills in the cardiovascular, metabolic, and endocrinologic aspects of diabetes. For the first three years, the recipient is expected to develop capabilities in fundamental, applied, or clinical research. This training should include exposure to multiple disciplines, which may include epidemiology. During the fourth and fifth years, the recipient is expected to initiate and
implement a research program of his/her own design, which may be epidemiologic in nature. NIAMDD and NHLBI welcome applications that include epidemiologic components in the training and research phases of the award.

Candidates for the SERCA award must (1) hold an M.D. or equivalent professional degree (e.g. D.D.S., D.O., D.V.M., etc.); (2) have a minimum of three years post-M.D. experience, including one year of clinical training in the subspecialities of either cardiovascular disease or endocrinology-metabolism, or two years post-M.D./Ph.D. experience or equivalent. M.D./Ph.D. applicants should possess significant experience in metabolic, endocrine, or related areas, cardiovascular physiology, biochemistry, pharmacology, or other relevant areas of interest, such as epidemiology; (3) be citizens or noncitizen nationals of the United States or its possessions or territories or must have been lawfully admitted to the U.S. for permanent residence at the time of application; (4) meet certain other eligibility requirements specified in the SERCA Program Guidelines.

METHOD OF APPLYING

Applications should be submitted on form PHS 398; application kits and guidelines for their preparation are generally available in the business or grants and contracts office at most academic and research institutions. They can also be obtained from the Division of Research Grants, NIH, Room 448, Westwood Building, Bethesda, Maryland 20014. Guidelines for the Special Emphasis Research Career Award can be obtained only from the Manpower Development Program Director for Diabetes, Endocrine, and Metabolic Diseases, NIAMDD, NIH, Room 626, Westwood Building, Bethesda, Maryland 20014; telephone (301) 496-7348.

The phrase "PREPARED IN RESPONSE TO NIH DIABETES EPIDEMIOLOGY PROGRAM ANNOUNCEMENT" should be typed across the top of the first page of the application. Applications will be accepted in accordance with the following receipt dates:

**Research Grants:**
November 1, 1978
March 1, 1979

**Individual National Research Service Awards:**
November 1, 1978
February 1, 1979

**Special Emphasis Research Career Awards:**
November 1, 1978
February 15, 1979

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

Application Receipt
Division of Research Grants
National Institutes of Health
Room 240, Westwood Building
Bethesda, Maryland 20014
METHOD AND CRITERIA FOR REVIEW

A. Assignment of Applications

Applications received by the NIH Division of Research Grants will be referred to an appropriate study section for scientific review and assigned to individual Institutes for possible funding. These decisions will be governed by normal programmatic considerations as specified in the NIH Referral Guidelines.

B. Review Procedures

Applications in response to this solicitation will be reviewed on a nationwide basis in competition with each other, and in accord with the usual National Institutes of Health peer review procedures. They will first be reviewed for scientific and technical merit by a review group composed mostly of non-Federal scientific consultants (study section), and then by the appropriate Institute Advisory Council. The review criteria customarily employed by the National Institutes of Health for the specific type of application will prevail.

For further information, applicants are encouraged to contact one or more of the following individuals:

**National Eye Institute**

Chief, Scientific Programs Branch  
NEI Extramural and Collaborative Programs  
Room 6A49, Building 31  
Bethesda, Maryland 20014  
Telephone: (301) 496-5303

**National Heart, Lung, and Blood Institute**

Associate Director, Etiology of Arteriosclerosis and Hypertension Program  
Division of Heart and Vascular Diseases, NHLBI  
Room 516, Federal Building  
Bethesda, Maryland 20014  
Telephone: (301) 496-1613

or

Chief, Epidemiology Branch  
Clinical Applications and Prevention Program  
Room 2C08, Federal Building  
Bethesda, Maryland 20014  
Telephone: (301) 496-2327
National Institute of Allergy and Infectious Diseases

Chief, Program Planning and Projection Staff
NIAID
Room 6A17, Building 31
Bethesda, Maryland 20014

Telephone: (301) 496-2321

or

Chief, Epidemiology and Biometry Branch
NIAID
Room 739, Westwood Building
Bethesda, Maryland 20014

Telephone: (301) 496-7067

National Institute of Arthritis, Metabolism, and Digestive Diseases

Diabetes Program Director, Clinical and Physiological Studies
NIAMDD Extramural Programs
Room 626, Westwood Building
Bethesda, Maryland 20014

Telephone: (301) 496-7348

or

Program Director
National Diabetes Data Group
Room 620, Westwood Building
Bethesda, Maryland 20014

Telephone: (301) 496-7595

National Institute of Child Health and Human Development

Acting Chief, Developmental Biology and Nutrition Branch
Center for Research for Mothers and Children
NICHD
Room C718, Landow Building
Bethesda, Maryland 20014

Telephone: (301) 496-5575
National Institute of Dental Research

Special Assistant for Program Coordination
NIDR Extramural Programs
Room 507, Westwood Building
Bethesda, Maryland 20014

Telephone: (301) 496-7748

National Institute of Neurological and Communicative Disorders and Stroke

Neurological Disorders Program
NINCDS Extramural Programs
Room 710, Federal Building
Bethesda, Maryland 20014

Telephone: (301) 496-1432

or

Chief, Office of Biometry and Epidemiology
Room 7A14, Federal Building
Bethesda, Maryland 20014

Telephone: (301) 496-4106

National Institute on Aging

Associate Director for Extramural and Collaborative Research Programs
NIA
Room 5C21, Building 31
Bethesda, Maryland 20014

Telephone: (301) 496-5534

or

Associate Director for Epidemiology, Demography, and Biometry
Room 5C12, Building 31
Bethesda, Maryland 20014

Telephone: (301) 496-1178
REQUEST FOR RESEARCH GRANT APPLICATIONS: RFA

TROPICAL DISEASE RESEARCH UNITS,

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES (NIAID)

The National Institute of Allergy and Infectious Diseases (NIAID) invites applications for program project grants to be initiated during FY 1980 for participation in a new Tropical Disease Research Unit (TDRU). The Institute plans to solicit applications for TDRUs only periodically and at designated times.

The Tropical Disease Research Unit is intended to bring together relevant biomedical knowledge and technology in a multidisciplinary attack on the world's tropical and parasitic diseases. Each TDRU will be expected to focus on one or more disease areas, and to develop programs of basic and applied research within the disease area related to the basic biology and immunology of the host-parasite relationship, improved diagnostic procedures, immunotherapy and immunoprophylaxis, chemotherapy and chemoprophylaxis, vector biology and control and other approaches to treatment and prevention. To mount a multidisciplinary approach to the solution of some of these complex problems, it may be necessary to form a consortium of one or more collaborating institutions in geographic proximity which possess complimentary expertise.

SCIENTIFIC PROGRAM REQUIREMENTS

The complexity of the major tropical diseases is such that a multidisciplinary attack is desirable. The primary goal of TDRUs is to apply recently developed innovative biomedical technologies to the problems of one or more of the following diseases of interest to NIAID: parasitic diseases - malaria, schistosomiasis, filariasis, trypanosomiasis, and leishmaniasis; viral diseases - arena viruses and selected tropical rhabdoviruses; bacterial diseases - leprosy and yaws. The TDRU will represent a multidisciplinary and cooperative program between scientists in basic and applied fields to study these major diseases. Such disciplines as biochemistry, cell biology, entomology, pharmacology, immunology, and genetics should join those of parasitology, virology, and bacteriology in an attack on these diseases.

The U.S.-based TDRU is, on a national basis, complementary to another NIAID program project - The International Collaboration in Infectious Diseases Research (ICIDR) program - in which the major portion of the work is to be done in a foreign country. In the case of a TDRU, small-scale collaborative field studies in one or more foreign countries might well constitute a valuable adjunct to the unit's overall program. This activity should represent a minor portion of the studies to be supported, however, since the TDRU is to be essentially a domestic operation. Support will be for a minimum of three years and a maximum of five. In addition to the
ICIDR program project grants, applicants who wish to work overseas for extended periods are encouraged to apply for individual research (R01) project grants.

A program project grant is a mechanism for the support of a broadly based multidisciplinary research program that has a well-defined central research focus or objective. This contrasts with the usually narrower thrust of the traditional individual research project. The responsibility for leadership of the program resides with the principal investigator (P.I.) who must possess demonstrated scientific and administrative competence. The program project grant consists of a number of interrelated projects that contribute to the program objective. Each of these scientifically meritorious projects usually is under the leadership of an established investigator. The grant also can provide support for certain common resources (cores). Such resources (e.g. laboratory or clinical facilities) should be utilized by two or more projects within the program when such sharing facilitates the total research effort. In addition, a program project consists of scientifically meritorious projects whose interrelationships will result in a greater contribution to its program goals than if each project were pursued individually.

DISTINGUISHING FEATURES OF A PROGRAM PROJECT GRANT

1. There must be a unifying well-defined goal or problem area of research to which each project relates and contributes thereby producing a research environment that allows each research effort to share the creative strengths of the others.

2. The P.I. must possess recognized scientific and administrative competence. The P.I. must show a substantial commitment of time and effort to the program and exercise leadership in the maintenance of its quality control.

3. Each research project included in the program project grant application must, as assessed by peer review, stand on its own independent scientific merit, as well as complement other projects whenever feasible.

4. These multiple projects require the participation of investigators in several disciplines or such persons with special expertise in several areas of one discipline. All investigators must contribute to, and share in, the responsibilities of fulfilling the program objective.

5. Only institutions with strong ongoing research programs and resources that can focus on a multidisciplinary attack on tropical diseases will be considered for program project support under the provisions of this program.

METHOD OF APPLYING

A. Letter of Intent

Prospective applicants may submit a brief, one-page letter stating their intent to submit an application and describing the general area of research to be proposed. The letter of intent should be
submitted 60 days prior to the deadline for receipt of applications and should be addressed to:

Dr. Kenneth Phifer  
Parasitology Program Officer  
Molecular Microbiology and Parasitology Branch  
Microbiology and Infectious Diseases Program, NIAID  
Room 737, Westwood Building  
National Institutes of Health  
Bethesda, Maryland 20014

The Institute requests such letters only to provide an indication of the number and scope of applications which will require consideration. A letter of intent is not binding and it will not enter into the review of any proposal.

B. Format for Applications

An information brochure on NIAID program project grants is available and provides special instructions for program project grant applications. This brochure may be requested now or in the letter of intent.

C. Application Procedures

The submission date for receipt of proposals has been set for March 1, 1979. Therefore letters of intent and receipt of applications will be due as stated below:

<table>
<thead>
<tr>
<th>Letter of Intent</th>
<th>Applications</th>
</tr>
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<tbody>
<tr>
<td>January 1, 1979</td>
<td>March 1, 1979</td>
</tr>
</tbody>
</table>

The original and 6 copies of the application should be sent or delivered to:

Application Receipt  
Division of Research Grants  
National Institutes of Health  
Room 240, Westwood Building  
Bethesda, Maryland 20014

It is important that a brief covering letter accompany the application indicating that it is in response to this program announcement. A copy of the covering letter and one additional copy of the application should be sent to Dr. Kenneth Phifer.

D. Review Procedures

Proposals in response to this solicitation will be reviewed on a nationwide basis in competition with each other, and in accord with the usual National Institutes of Health peer review procedures. They will first be reviewed for scientific and technical merit by a review group composed mostly of non-Federal scientific consultants.
(Microbiology and Infectious Diseases Advisory Committee), and then by the National Advisory Allergy and Infectious Diseases Council. The review criteria customarily employed by the National Institutes of Health for regular research grant applications will prevail.

E. Expected Number of Awards

The applications received in response to this solicitation will compete for fiscal year 1980 funds. Because there is considerable uncertainty as to the level of funds that will be available then, the Institute has not yet established the maximum number of TDRU awards it could realistically make. This number will be determined as soon as possible and the applicants will be appropriately advised.