For Grants and Contracts

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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

Vol. 17, No. 24 July 29, 1988 First-Class Mail Postage & Fees Paid PHS/NIH/OD Permit No. G-291

NOTICES

REVISED BOOKLET - NIH EXTRAMURAL PROGRAMS
MEETING - IRBs AT THE CROSSROADS: EXPANDING ROLES AND EXPANDED PROBLEMS
NATIONAL RESEARCH SERVICE AWARD (NRSA) STIPEND INCREASE
DATED ANNOUNCEMENTS (RFPs AND RFAs)
SUPPORT SERVICES FOR EXPOSURE METHODS FOR PESTICIDES (RFP)
TRANSFUSION TRIAL TO PREVENT PLATELET ALLOIMMUNIZATION (RFA)
MOLECULAR AND CELLULAR BIOLOGY OF CARDIAC INTERSTITIUM (RFA)
ONGOING PROGRAM ANNOUNCEMENTS
ROLE OF MARKET FORCES IN THE DELIVERY OF HEALTH CARE (PA)
STUDIES ON THE PATHOPHYSIOLOGY OF NEUTROPENIAS AND THE MECHANISMS OF ACTION OF COLONY STIMULATING FACTORS (PA)
PATHOPHYSIOLOGICAL MECHANISMS OF ENTEROPATHOGENIC VIRUSES (PA) 9 National Institute of Allergy and Infectious Diseases Index: ALLERGY AND INFECTIOUS DISEASES

NOTICES

REVISED BOOKLET - NIH EXTRAMURAL PROGRAMS

P.T. 34, 44; K.W. 0710030, 0720005

National Institutes of Health

The National Institutes of Health (NIH) has revised the NIH Extramural Programs Booklet, Funding for Research and Research Training, May 1988, (NIH Publication No. 88-33). This publication is a compendium of the scientific programs of the NIH components that award grants, cooperative agreements, and contracts. It indicates current areas of research emphasis, highlights the special interests of each awarding component, and identifies specific NIH offices that may be contacted for further information about particular programs, policies, and procedures. Institutional officials and investigators may obtain copies of this booklet by writing to:

Office of Grants Inquiries Division of Research Grants National Institutes of Health Westwood Building, Room 449 Bethesda, Maryland 20892 Telephone: (301) 496-7441

MEETING - IRBs AT THE CROSSROADS: EXPANDING ROLES AND EXPANDED PROBLEMS

P.T. 42; K.W. 1014002, 1014003, 0783005

Public Responsibility in Medicine and Research

Public Responsibility in Medicine and Research (PRIM&R), a national organization concerned with ethical issues in research and medicine, is sponsoring a meeting entitled, "IRBs at the Crossroads: Expanding Roles and Expanded Problems." The meeting will be held on October 27-28, 1988, at the Boston Park Plaza Hotel, Boston, Massachusetts.

The conference will look at the Federal Regulations on Research with Human Subjects, and will reassess their breadth as of their tenth anniversary approaches. Other issues to be examined at this meeting will include the problems of fraud and misconduct in medical research; the conduct of clinical trials in general, and subject payment for research drugs and devices in particular; IRB review of innovative therapies, including sequencing the genome, genetic testing and genetic research; input by pharmaceutical companies into the IRB review process; researcher responsibility in determining appropriate uses of confidentially acquired research data, including those derived from HIV-related projects; the use of cell lines and tissues, including fetal tissues; research with the elderly; the IRB's role in educating investigators and other institutional staff; reviewing research involving biohazards, and reviewing AIDS research - including vaccine development, etc.

As in the past, the conference will include two specially designed educational series, one for committee administrators, and the second for new IRB members. This series serves as a basic orientation course for any new member, chair, or administrator.

The meeting will consist of both plenary sessions and workshops, and will have a faculty of over thirty distinguished experts from the fields of IRB operation and administration, research and clinical practice, the Federal Government, the legal profession, and practicing ethicists.

On October 26, 1988, Applied Research Ethics National Association (ARENA) will host its third annual meeting, also at the Park Plaza Hotel in Boston. This meeting will be held from 9 a.m. to 5 p.m., and will include a variety of speakers and workshops addressing issues pertinent to both IRB and IACUC administrators.

For complete programs or further information please contact:

PRIM&R 132 Boylston Street 4th Floor Boston, Massachusetts 02116 Telephone: (617) 423-4112 or (617) 423-1099

NATIONAL RESEARCH SERVICE AWARD (NRSA) STIPEND INCREASE

P.T. 22, 44; K.W. 1014002, 0720005

Public Health Service

Effective October 1, 1988, the annual stipend levels for all individuals receiving support through awards made under the National Research Service Award (NRSA) Act, P.L. 93-348 as amended under P.L. 99-158, will be as follows:

Predoctoral Stipend

or more

All Years	Current	As of October 1, 1988
	\$ 6,552	\$ 8,500
Postdoctoral Stipend		
Years of Relevant Experience	Present Stipend	As of October 1, 1988
0 1 2 3 4 5	\$15,996 17,004 21,996 23,004 24,000 26,004 27,996	\$17,000 18,000 25,000 26,250 27,500 28,750 30,000
9	41,770	30,000

30,000

Stipend level adjustments can be made only on the award date of the fellowship or the appointment date of the trainee. These stipend levels are effective only for awards made beginning with FY 1989 funds; no retroactive adjustments or supplementation of stipends with NRSA funds for awards made prior to October 1, 1988, or with funds from FY 1988 is permitted.

31,500

The new stipend levels are to be used in the preparation of future NRSA institutional training and individual fellowship applications. They will be administratively applied to all applications now in the review process.

DATED ANNOUNCEMENTS (RFPs AND RFAs)

SUPPORT SERVICES FOR EXPOSURE METHODS FOR PESTICIDES

RFP AVAILABLE: NCI-CP-95602-25

P.T. 34; K.W. 0725005, 1007009, 0785055, 0404021

National Cancer Institute

The Environmental Epidemiology Branch (EEB) of the Epidemiology and Biostatistics Program (EBP) of the Division of Cancer Etiology (DCE) of the National Cancer Institute (NCI) is seeking a Contractor who will support the EEB by conducting epidemiological and natural history studies of the individuals who use pesticides, specifically farmers and their next-of-kin. Components of this project include: developing questionnaires to obtain detailed information on pesticide use; conducting interviews and reinterviews of subjects regarding pesticide use, to assess intra-individual reliability; conducting interview of subjects and surrogates to compare quality of their responses, comparing subject's recall regarding past pesticide use with purchase records of the subjects and their pesticide suppliers; obtaining air, wipe, blood and urine samples to obtain measures of pesticide exposure (only collection and transportation of the samples will be handled under this contract: analyses will be the responsibility of the NCI); and assembling a panel of pesticide experts to obtain their assessment of the validity of subject responses. It is anticipated that an incrementally funded, cost-reimbursement, completion type contract will be awarded for a two-year period. The anticipated issue date of this RFP is on or about July 22, 1988, with responses due 30 days from the actual date of RFP issuance.

Copies of the RFP may be obtained by submitting a written request to:

Richard L. Hartmann, Contract Specialist Research Contracts Branch, National Cancer Institute Blair Building, Room 114 National Institutes of Health Bethesda, Maryland 20892 Telephone: (301) 427-8888

TRANSFUSION TRIAL TO PREVENT PLATELET ALLOIMMUNIZATION

RFAs AVAILABLE: 88-HL-12B (Clinical Centers) 88-HL-13B (Coordinating Center)

P.T. 34; K.W. 0755015, 0750010

National Heart, Lung, and Blood Institute

The NHLBI announces a change in the schedule for RFA-NIH-88-HL-12B and RFA-NIH-88-HL-13B, Transfusion Trial to Prevent Platelet Alloimmunization, previously published in the NIH Guide for Grants and Contracts, Vol. 17, No. 20, June 10, 1988, p.2.

The new schedule is:

Letter of Intent: August 15, 1988
Application Receipt Date: September 22, 1988

Review by National Heart Lung, and Blood Institute

Advisory Council: May 25-26, 1989
Anticipated Award: July 1, 1989

For further information contact:

Paul R. McCurdy, M.D. DBDR, NHLBI Federal Building, Room 518 National Institutes of Health Bethesda, Maryland 20892 Telephone: (301) 496-8387

MOLECULAR AND CELLULAR BIOLOGY OF CARDIAC INTERSTITIUM

RFA AVAILABLE: 88-HL-19-H

P.T. 34; K.W. 0705015, 1002004, 1002008, 0765035

National Heart, Lung, and Blood Institute

Application Receipt Date: January 16, 1989

BACKGROUND

Congestive heart failure (CHF) afflicts approximately 2.3 million Americans and has become the most frequently specified DRG (diagnostic related groups). CHF has a variety of etiologies all of which result in loss of cardiac mechanical function. While the role of hypertrophy, necrosis, and altered function of heart muscle cells are the subject of considerable research, the role of changes in the cardiac interstitium has received relatively little attention. Yet, morphologists have shown that profound structural changes occur in the interstitium as a result of ischemia, hypertrophy, or viral infection. In the past, these changes have generally been regarded as passive phenomena and reparative processes. Accumulating evidence now suggests that remodeling of the connective tissue framework of the heart may contribute to the disease process and the appearance of heart failure. A major component of the connective tissue framework of the heart is fibrillar collagen which appears to be secreted by cardiac fibroblasts residing in the interstitium.

OBJECTIVES AND SCOPE

The overall goal is to encourage research focused on the molecular and cellular biology of the cardiac interstitium and on mechanisms involved in the initiation and control of changes which occur as a result of physiologic and pathologic stimuli. Examples of appropriate projects are: expression and regulation of cardiac fibroblast collagen genes and collagenase genes; interactions between fibroblasts and other cells and components of the cardiac interstitium; and factors involved in the migration and proliferation of cardiac fibroblasts.

MECHANISM OF SUPPORT

The support mechanism for this program will be the traditional, individual research grant. All current policies and requirements that govern the research grant programs of the National Institutes of Health will apply to grants awarded under this RFA. Awards will be made to foreign institutions only for research of very unusual merit, need, and promise, and in accordance with Public Health Service policy governing such awards.

The financial plans for fiscal year 1989 include \$1,500,000 for the total costs of this program, award of grants pursuant to this RFA is contingent upon receipt of funds for this purpose. It is anticipated that up to ten grants will be awarded under this program. The specific amount to be funded will, however, depend on the merit and scope of the applications received and on the availability of funds.

REVIEW PROCEDURES

All applications submitted in response to this RFA will be evaluated for scientific and technical merit by an initial review group, which will be convened for this purpose, by the Division of Extramural Affairs, NHLBI.

METHOD OF APPLYING

Potential applicants should write or phone the individual listed below for the full RFA document, which includes instructions for the submission of applications:

Constance Weinstein, Ph.D.
Cardiac Diseases Branch
Division of Heart and Vascular Diseases
National Heart, Lung and Blood Institute, NIH
Federal Building, Room 3C06
7550 Wisconsin Avenue
Bethesda, Maryland 20892
Telephone: (301) 496-1081

ONGOING PROGRAM ANNOUNCEMENTS

ROLE OF MARKET FORCES IN THE DELIVERY OF HEALTH CARE

P.T. 34; K.W. 0730050, 0408006

National Center for Health Services Research and Health Care Technology Assessment

BACKGROUND INFORMATION

The Division of Extramural Research (DER) of the National Center for Health Services Research and Health Care Technology Assessment (NCHSR) encourages grant applications for health services research on the role of market forces in the delivery of health care. Analysis of market forces includes assessment of new approaches to greater cost consciousness and measurements of the effects of increased competition on the organization, financing, distribution, and delivery of health care resources and services.

RESEARCH GOALS AND SCOPE

Previous studies of the role of market forces for NCHSR have included investigations of adverse selection in the choice of health plans, the cost of capital in hospitals, the use of services by the elderly in a capitated health plan, the evolution of alternative delivery systems, and the effect of advertised physician fees on the consumers' choice of providers. Eight areas for health services research have been identified: rural health care; medical malpractice and insurance; supply, productivity, and reimbursement of hospitals; health care technology assessment; alternative delivery systems; health care and the elderly; cost and financing issues of AIDS; and consumer-oriented health care. These research areas and examples of each are outlined in the following sections. Some questions concerning indigent care and the role of the physician in a changing health care system are found in several areas. Each area is discussed in greater detail in the April 1988 publication, "The Role of Market Forces in the Delivery of Health Care: Issues for Research," which is available on request from NCHSR.

Rural Health Care:

Examples of research issues include the characteristics of rural hospitals that are sole providers in their communities; the effects of local economic conditions on the fiscal viability of rural hospitals; the extent of variation in medical practice of rural versus urban health care providers; the effects of hospital closure on the community; the factors that affect the supply and mix of health professionals; and the relationships between rural hospitals and health maintenance organizations (HMOs).

Medical Malpractice and Insurance:

Questions include the relationships between variations in medical practice, adverse outcomes, and the extent and nature of malpractice claims and awards for specific procedures and medical conditions; the effects of technology changes on outcomes; and the impact of malpractice costs on specialty choice and practice patterns of health care providers.

Supply, Productivity, and Reimbursement of Hospitals:

There are several research questions that pertain to the organization, structure, and performance of hospitals in a more competitive environment. Examples of these include the effects of competition on the quality of care offered to economically and medically disadvantaged individuals; the nature of the market response of hospitals to rapid changes in alternative delivery systems; the extent of the "cost shifting" between patients covered by different payers; and the effect of prospective payment on the relationships between hospitals and physicians.

Health Care Technology Assessment:

NCHSR is interested in development of methodologies that will permit increased use of cost-benefit and cost-effectiveness analyses in decisionmaking, in addition to more general issues in health care technology assessment. Examples include analysis of the optimal rates of diffusion and obsolescence of innovation; the value of diagnostic information in reducing patient anxiety or increasing satisfaction; the relationship between specific outcomes and multiple diagnostic tests; and the effect of new technology on the productivity, incomes, and specialty mix of physicians.

Alternative Delivery Systems:

The health care market is characterized by new and rapidly developing delivery systems and cost management. Studies are required that explore the development of HMOs, preferred provider organizations (PPOs), ambulatory surgery and freestanding emergency/urgent care centers, multihospital systems, and their effects on cost and quality of care and access to care.

Health Care and the Elderly:

As America's elderly population increases, the need for institutional and community-based services for these individuals is likely to grow. Studies are required to address a variety of questions, including the effect of reduced growth of nursing home beds on access to care; the main determinants affecting admission to nursing homes; the effectiveness of case-based reimbursement in containing nursing home costs; and the costs of formal and informal care for persons with Alzheimer's disease and related dementias.

Cost and Financing Issues of AIDS:

The economics of AIDS is part of a larger NCHSR agenda for health services research on this major medical problem. Examples of issues that need study include projection of national costs and expenditures for AIDS; changes in various sources of payment for AIDS care; the cost effectiveness of various treatment modalities; variation in treatment costs by region, risk factors, age, gender, and socioeconomic variables; indirect costs of AIDS; factors affecting the availability of insurance coverage; and availability and willingness of health care practitioners to treat AIDS.

Consumer-Oriented Health Care:

An environment that encourages competition requires increasingly informed consumer decisions. Research is needed on how the availability of services in hospitals for different population groups is influenced by local market competition; the extent that regulation contributes to increased costs of health care and reduces aggressive price competition in the market for services; and the effect that an increased supply of physicians has on the price and use of physician services.

APPLICATION AND REVIEW PROCEDURES

Applications may be submitted by any public or private nonprofit institution or unit of State or local government. Applications must be submitted on Public Health Service Form 398, Grant Application, except for applications from State and local governments. The latter are required to submit Grant Application Form PHS 5161-1.

Materials for applications are available from:

John D. Gallicchio Chief, Review and Advisory Services Program National Center for Health Services Research and Health Care Technology Assessment 5600 Fishers Lane, Room 18A-20 Rockville, Maryland 20857 Telephone: (301) 443-3091

The applicant should check the box on the PHS 398 applications form's face sheet (line 2), indicating that the proposal is in response to an NCHSR program note and print "NCHSR Role of Market Forces" next to the checked box.

The schedule for submission and review of the application is:

NIH/DRG Submission	Study section Review	Council Review	Earliest Start Date
June 1	October	February	March 1
October 1	March	June	July 1
February 1	June	September	September 30

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

National Institutes of Health Division of Research Grants Room 240, Westwood Building Bethesda, Maryland 20892**

NCHSR research grant applications are generally reviewed for scientific and technical merit by a review panel or study section comprised of non-Federal experts. Each application will be reviewed according to the following criteria:

- the significance and originality of the project from a scientific and technical viewpoint
- o the adequacy of the methodology proposed to carry out the project
- the availability of data and the adequacy of the data collection plan
- o the appropriateness of the work plan and the schedule for organizing and completing the project
- o the qualifications of the principle investigator(s) and staff
- o the adequacy of the facilities available to carry out the project
- o the reasonableness of the budget
- o the adequacy of the proposed protection of human and animal subjects

Applications dealing with technology assessment and exceeding \$50,000 in direct costs require consultation by NCHSR with the National Advisory Council on Health Care Technology Assessment before funding decisions are made.

INQUIRIES

Further program information may be obtained from:

Ira E. Raskin, Ph.D.
Chief, Cost and Financing Cluster
Division of Extramural Research
National Center for Health Services Research
and Health Care Technology Assessment
5600 Fishers Lane, Room 18A-19
Rockville, Maryland 20857

STUDIES ON THE PATHOPHYSIOLOGY OF NEUTROPENIAS AND THE MECHANISMS OF ACTION OF COLONY STIMULATING FACTORS

P.T. 34; K.W. 0765035, 0755020, 0715015

National Institute of Allergy and Infectious Diseases

The Immunology, Allergic and Immunologic Diseases Program (IAIDP) of the National Institute of Allergy and Infectious Diseases, a component of the National Institute of Health, invites grant applications (R01s or R29s) for support of basic and preclinical studies in the area of neutrophil biology.

BACKGROUND INFORMATION

Abnormally low levels of circulating neutrophilic granulocytes and their bone marrow precursor elements represent the expression of a group of hematologic disorders associated with a multiplicity and variety of causes and potential factors. Reductions in the numbers of granulocytes may be congenital in origin or traced to adverse effects following exposure to toxic chemicals and radiation; idiosyncratic drug reactions; failure of production, maturation or release from bone marrow; leukemic processes, and severe pyogenic infection. However, an arbitrary classification primarily based upon associations does not define or explain exact etiologic and pathogenetic mechanisms in all instances.

Elucidation of the unique pathophysiology of individual syndromes in the spectrum of neutropenic disorders can be expected to generate important basic biomedical information of direct clinical relevance. Thus the translation and application of basic studies aimed at the development of improved methods for the diagnosis, treatment, and prevention of neutropenias represent an important goal of these studies. Additionally pertinent, recent advances in studies on the biology and chemistry of hematopoietic cytokines offer unique opportunities to utilize such emerging knowledge to further understanding of granulocyte related mechanisms. Generation of research data on colony stimulating factors (CSFs) applicable to the control of pathophysiologic processes responsible for neutropenic disorders represents another important goal of investigation.

The genes which encode the major human CSFs have been cloned and sufficient quantities of recombinant CSFs are now available for further characterization. The possibilities for investigating the physiologic role of growth factors and the mechanisms of their actions are enormous. However such studies may lag behind the clinical applications of CSF therapy to treat cytopenias of various kinds, e.g., AIDS associated neutropenia, as well as infectious, autoimmune, toxic and genetic granulocytopenic syndromes.

In vitro, recombinant granulocyte-macrophage colony stimulating factor (GM-CSF) has been shown to express biologic activities similar to that of GM-CSF purified from a T-lymphoblast cell line. This cytokine manifests a wide variety of in vitro activities including the induction of myeloid cell proliferation, modulation of neutrophil migration, potentiation of antibody-dependent cellular cytotoxicity (ADCC), augmentation of neutrophil oxidative metabolism, and phagocytosis. Since, in vivo, CSFs exert their biologic activities in limited and specific microenvironments and are not normally present in significant amounts in the circulation, the therapeutic exploitation of these compounds will require a thorough understanding of both their local and systemic properties.

Recently, recombinant GM-CSF has also been used clinically to treat both neutropenia associated with AIDS and patients with myelodysplastic syndromes. The short term, continuous infusion of GM-CSF produced no serious side effects and led to hematologic improvement. However, the neutropenia returned soon after the cessation of treatment, indicating that long term administration of recombinant cytokines may be required to reverse some neutropenic diseases. Additionally pertinent is the marked prominence of morbidity and mortality associated with the expression of high levels of GM-CSF gene activity in GM-CSF transgenic mice. Thus it is important to fully characterize the in vivo properties and mechanisms of action of CSFs to optimize the potential of

their therapeutic effectiveness and to establish criteria and guidelines for the treatment of neutropenias with CSFs on a rational basis.

RESEARCH GOALS AND SCOPE

The National Institute of Allergy and Infectious Diseases (NIAID) is soliciting investigator initiated regular research grant applications that are designed to increase knowledge of the etiology of clinical granulocytopenias and to characterize the mechanisms of action of CSFs. Investigations may include but are not limited to:

- Production of animal models of autoimmune, toxic and genetic granulocytopenias and of genetic models of "low" and "high" producers of CSFs.
- 2. Characterization of the etiology of human neutropenias.
- 3. Mechanisms of CSF actions on stem cells, determination of the active sites on CSF molecules and characterization of specific CSF receptors and their genes.
- 4. Identification of factors which bind to granulocytes (other than CSFs) which are involved in granulocytopenias.
- 5. Evaluation of the effect of long term administration of recombinant CSFs on animal or human tissues.
- 6. Characterization of granulocyte surface antigens and the development of serologic test for anti-granulocyte antibodies.

MECHANISMS OF SUPPORT

The mechanism of support will be the individual research project grant (R01) and the First Independent Research Support and Transition (FIRST) award (R29). Policies that govern research grant programs of the National Institutes of Health will prevail. The award of grants pursuant to this announcement is contingent upon receipt of highly original proposals of high scientific merit, responsiveness to this announcement, relevance to the program, and the availability of appropriated funds.

APPLICATION AND REVIEW PROCEDURES

Applicants should use the standard research grant application form PHS 398 (Rev. 9/86). For purposes of identification and processing, check yes on item 2 of the face page and enter the title: "STUDIES ON THE PATHOPHYSIOLOGY OF NEUTROPENIAS AND THE ACTIONS OF CSFs". There are three receipt dates for new applications: February 1, June 1, and October 1. All applications will be assigned by the Division of Research Grants for review according to the NIH process for regular research grant applications. Applications recommended for approval will compete for available funds with all other approved applications assigned to the NIAID. The original and six copies of the application should be submitted to:

Division of Research Grants National Institutes of Health Westwood Building, Room 240 Bethesda, Maryland 20892**

Applicants are requested to address programmatic issues and mail a copy of the face page to:

Daniel I. Mullally, M.D., M.P.H. Program Officer Clinical Immunology and Immunopathology Branch, IAIDP National Institute of Allergy and Infectious Diseases Westwood Building, Room 754 Bethesda, Maryland 20892

Requests for additional information or questions regarding this program may be directed to Dr. Mullally at the address above.

PATHOPHYSIOLOGICAL MECHANISMS OF ENTEROPATHOGENIC VIRUSES

P.T. 34; K.W. 0765035, 1002045, 0785055

National Institute of Allergy and Infectious Diseases

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

I. Background

The pathogenesis and epidemiology of disease caused by the interaction of enteropathogenic viruses with the various cells of the intestine has not been elucidated for most viruses. Yet throughout the world, viral gastroenteritis afflicts millions of individuals of all ages every year. In the U.S. and other developed countries where bacterial infections of the gastrointestinal tract are less prevalent, the viral agents are a special problem. Where studied, they can cause severe life-threatening diarrhea, vomiting and dehydration in infants, and a diarrhea and vomiting syndrome in older children and adults that interferes with work, school and play. Although progress has been achieved with the development of some rotavirus vaccine candidates, more rapid progress is anticipated when the pathogenesis and mechanisms of immunity have been defined for all groups of enteropathogenic viruses.

II. Research Objectives and Scope

The National Institute of Allergy and Infectious Diseases (NIAID) invites applications for research grants on viral infections of the bowel as part of its continuing program in support of research in infectious enteric diseases. Applications should focus on the role of any one or combination of the following human enteropathogenic viruses: type A and type B rotavirus, Norwalk virus and 27nm small round viruses, astrovirus, calicivirus, coronavirus, and enteric adenovirus. Other unclassified viral-like agents are not to be excluded. Experimental models of animal enteric viruses are also encouraged.

More specifically, information is sought on viral receptors, intracellular virus replication, viral effects on enterocyte metabolism, mechanisms of the secretory diarrhea, host immune responses (short and long-term), and epidemiological studies that clarify the transmission parameters. Proposed investigator-initiated research can explore the mechanisms of enteric virus pathogenesis in vitro, in animal models, or in man. Diagnostic reagents and assays for investigations of many of the human enteric viruses will soon be available from the CDC under an Interagency Agreement sponsored by the NIAID. Recommendations for this program announcement originated in an NIAID/NIDDK sponsored conference entitled, "Prospects for Effective Non-Antimicrobial Antidiarrheal Agents" held at the NIH, May 8-9, 1986. Advances in molecular virology, recent cultivation and diagnosis of several human enteric viruses, and development of useful animal models provide a scientific basis for this initiative.

III. Review Procedures

Applications in response to this announcement will be reviewed on a nation-wide basis in competition with other applications and in accordance with the usual National Institutes of Health peer review procedures. The initial review for scientific and technical merit will be by an appropriate study section of the Division of Research Grants, NIH; secondary review will be by the National Institute of Allergy and Infectious Diseases Advisory Council. Funding decisions will be based upon relative scientific merit, program relevance, and the availability of appropriated funds.

IV. Mechanisms of Support (Listed by Grant Code)

R01 Research Project (Traditional) R29 First Independent Research Support and Transition (FIRST) Award R43 Small Business Innovation Research Grants (SBIR) F32 Postdoctoral Individual National Research Service Award K04 Modified Research Career Development Award K08 Clinical Investigator Award K11 Physician Scientist Award (Individual) N43 Small Business Innovation Research - Phase I (Contract) P01 Research Program Projects

V. Application Procedure

Applications will be accepted on an indefinite basis in accordance with the receipt, Initial Review Group, National Advisory Council, and earliest possible beginning dates specified in the application kit. On the first (face) page, item 2, of the application, the "Yes" should be checked and the phrase "RESPONSE TO NIAID ANNOUNCEMENT ON THE PATHOPHYSIOLOGICAL MECHANISMS OF ENTEROPATHOGENIC VIRUSES" should be typed in the space provided.

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**

VI. Staff Contact

For further information concerning this announcement and the mechanisms of support for research, investigators are encouraged to contact:

George Curlin, M.D.
Microbiology and Infectious Diseases Program
NIAID, NIH
Westwood Building, Room 749
Bethesda, Maryland 20892
Telephone: (301) 496-8362

or

William P. Allen, Ph.D., Chief Bacteriology and Virology Branch MIDP, NIAID, NIH Westwood Building, Room 736 Bethesda, Maryland 20892 Telephone: (301) 496-7728

Applications oriented towards epidemiology and clinical studies should be mailed to Dr. Curlin, and those oriented towards basic research should be mailed to Dr. Allen.

Support is authorized by the Public Health Service Act, Public Law 78-410, as amended. The Catalog of Federal Domestic Assistance citation is Sec. 13.856, Microbiology and Infectious Diseases Research. Awards will be 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 list.

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

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