NIH GUIDE

For Grants and Contracts

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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. 16, NO. 5, FEBRUARY 6, 1987

Vol. 16, No. 5, February 6, 1987

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EXTRACTION AND PURIFICATION OF RAT PITUITARY HORMONES

RFP AVAILABLE: RFP-NIH-NIDDK-87-3

P.T. 34; K.W. 0780005, 0760025

National Institute of Diabetes and Digestive and Kidney Diseases

The National Institute of Diabetes, and Digestive and Kidney Diseases (NIDDK) is soliciting contract proposals from organizations with the capabilities and facilities to provide for the extraction and purification of rat pituitary hormones.

This Request for Proposals, RFP NIH-NIDDK-87-3, will be available on or about February 9, 1987 with a closing date set for March 31, 1987. To receive a copy of the RFP, please supply this office with two self addressed mailing labels. Requests for the RFP should be sent to the following address:

Shirley A. Shores
Contracting Officer
National Institute of Diabetes, and Digestive and Kidney Diseases
National Institutes of Health
Westwood Building, Room 602
Bethesda, Maryland 20892

This advertisement does not commit the Government to award a contract.

ASSESSMENT OF THE IMPLEMENTATION AND IMPACT OF THE COMMUNITY CLINICAL ONCOLOGY PROGRAM, PHASE II

RFP AVAILABLE: NCI-CN-75415-43

P.T. 34; K.W. 0785140, 0785035, 0403004, 0795005

National Cancer Institute

The National Cancer Institute, Prevention and Control Contracts Section, is soliciting contract proposals for assessment of the implementation and impact of the Community Clinical Oncology Program, hereafter referred to as CCOP II in this document. Under CCOP II, approximately 50 CCOPs and 10 research bases will be supported for three years to conduct clinical treatment and other cancer control research.

The CCOP II will place new requirements on existing CCOPs, new CCOP applicants, research bases and NCI. The purpose of this acquisition is to assess: 1) the extent to which the CCOPs II, research bases and NCI implement and manage these new requirements; 2) the impact of the CCOP II program on cancer control research; 3) the impact of the cancer control interventions on community practices; and 4) the effect of CCOP II on cancer control activities in the community not specifically driven by the actual research conducted.

The Contractor will be responsible for design, implementation and analyses of all phases of the evaluation. The project will include primary collection by the Contractor of detailed descriptive information about each CCOP II, as well as the supervision of multi institutional data collection, quality control, and reporting and statistical analysis of technical biomedical data.

Offerors should have experience in large-scale program evaluation studies in health-related fields; experience in managing large-scale cancer data bases, and statistical analysis using the data bases and data quality control; and experience in conducting research in the study of diffusion and knowledge transfer in the area of health services/biomedical research especially related to cancer and/or cancer control. The personnel requirements include: 1) a physician with a minimum of three years of clinical experience in multi-institutional clinical trials with a demonstrated competence through publications in referenced journals; 2) a doctorate level person in Biostatistics/Epidemiology (or equivalent) with substantial experience in the development and analysis of large-scale clinical data bases and the technical design and implementation of health services research in operational settings; and 3) a doctorate level person in health policy/medical sociology or the equivalent with substantial experience in the conduct of studies of health care organizations and their role in changing physician behavior.

It is anticipated that a four-year, incrementally funded cost reimbursement type contract will be awarded to the successful offeror. RFP NCI-CN-75415-43 will be available on February 6, with proposals due on March 23. A reading room will be made available.

Copies of the RFP may be obtained by sending a written request, citing the RFP number to:

Diana L. Wheeler
Contract Specialist
National Cancer Institute, NIH
Research Contracts Branch
Blair Building, Room 2A07
Bethesda, Maryland 20892

A CLINICAL TRIAL FOR THE USE OF NOVEL THERAPIES IN BONE MARROW TRANSPLANTATION

RFP AVAILABLE: RFP-NIH-NIAID-IAIDP 87-29

P.T. 34; K.W. 0745065, 0755015, 0705005, 0710125

National Institute of Allergy and Infectious Diseases

The National Institutes of Health (NIH) has a requirement for the acquisition of a Clinical Trial of the Use of Novel Therapies in Bone Marrow Transplantation.

The Genetics and Transplantation Biology Branch of the Immunology, Allergy and Immunologic Diseases Program of the National Institute of Allergy and Infectious Diseases (NIAID) is soliciting contract proposals from organizations having the capabilities and facilities for conducting a clinical trial on the use of novel therapies in allogeneic bone marrow transplantation. Offerors should have demonstrated expertise in allogeneic bone marow transplantation and immunotherapeutic technologies as well as experience in the conduct of clinical trials.

The NIAID-sponsored project will take approximately four years to complete. The work will require clinical and immunologic monitoring of study populations, treatment of bone marrow, assessment of graft-versus-host disease and lymphocyte profiles and data analysis of efficacy of treatment.

Multi-institutional collaborative agreements to conduct the clinical trial are encouraged although this would not preclude an award to a qualified individual institution.

Two contracts may be awarded. The RFP will be available on February 17; proposals will be due on April 17.

To receive a copy of the RFP, please supply this office with two self-addressed mailing labels. Telephone inquiries will not be honored and all inquiries must be in writing and addressed to the office listed above.

All responsible sources may submit a proposal which shall be considered by the NIAID.

Rosemary L. McCabe
Contracting Officer
National Institute of Allergy and Infectious Diseases
Westwood Building, Room 707
5333 Westbard Avenue
Bethesda, Maryland 20892

CLINICAL EVALUATION OF THE RELATIVE EFFICACY AND SAFETY OF INTRAVENOUS PREMEDICATION IN DENTISTRY

RFP AVAILABLE: NIH-NIDR-3-87-1R

P.T. 34; K.W. 0785040, 0740025, 0715150

National Institute of Dental Research

The National Institute of Dental Research plans to issue a request for proposals for a collaborative clinical study of prototypical drug regimens administered intravenously to alleviate patient apprehension and pain during outpatient dental procedures. From two to five contractors will be selected to carry out a collaborative protocol developed by the contractors and NIDR.

Phase I of the study will include: design of the protocol; selection of prototype drugs and doses; development of a manual of procedures, subject data forms for a field test, and data quality control procedures; and development of a common data management and analysis system. Phase II will involve recruitment of subjects, data collection, and quality control monitoring. During Phase III, data analysis and collaborative publication of the study results occur.

Each contractor will be expected to provide a minimum of 100 male subjects or nonpregnant female subjects during each of the projected two years of data collection. Each subject must be in need of the surgical removal of 2-4 impacted third molars.

RFP NIH-NIDR-3-87-1R will be available approximately February 27, 1987, with a due date for proposals of April 10, 1987. Requests for a copy of the RFP should be in writing to:

Mr. William C. Roberts
Contracting Officer
National Institute of Dental Research
Westwood Building, Room 521
Bethesda, Maryland 20892

DRUG ABUSE TREATMENT RESEARCH CENTERS

DA-87-18

P.T. 34; K.W. 0404009, 0710030, 0415000

National Institute on Drug Abuse

Application receipt dates: April 1, 1987 and October 1, 1987

Grant support from the National Institute on Drug Abuse (NIDA) is available for establishing Drug Abuse Treatment Research Centers to conduct interdisciplinary research on the treatment of drug abuse. Funding for each Center may be up to a maximum of $700,000 (direct costs) for each year of operation.

An important consideration in the present state of the drug abuse treatment field is the need to systematically test treatment strategies in controlled designs, and to obtain adequate numbers of subjects to allow generalizations about the types of clients for whom a treatment is effective, and the circumstances under which it is effective. Such research requires larger numbers of clients and programs than are available in single-site projects, and it may be necessary to combine subject pools from a number of projects or Centers for some analyses. Therefore, applicants are encouraged to consider coordination between related studies, and between Centers doing similar work. Cooperative efforts will be facilitated by NIDA.

Further information and consultation on program:
Jack Blaine, M.D., or Frank Tims, Ph.D.
Treatment Research Branch, Division of Clinical Research
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-30
Rockville, Maryland 20857
Telephone: (301) 443-4060.

APPLICATION RECEIPT AND REVIEW SCHEDULE

Applications are invited for a special receipt date of April 1, 1987 for funding in FY 1987. Contingent on the availability of funds, applications are also being invited for the October 1, 1987 receipt date for consideration for funding in FY 1988. For review and funding criteria, applicants are invited to request the full text of the announcement from NIDA.

DRUG ABUSE ASPECTS OF THE ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

DA-87-11

P.T. 34; K.W. 0715120, 0404009, 0502017, 0745055, 0785055

National Institute on Drug Abuse

Initial application receipt date: April 1, 1987
Subsequent application receipt dates: June 1, October 1, February 1

The purpose of this announcement is to stimulate research on the interrelationships between AIDS and drug abuse. One focus of this research is health education/prevention directed towards minimizing the spread of the AIDS virus among drug abusing populations and, hence, to the general population. A second focus is the identification and study of co-factors that influence the spread and the clinical course of Human T-cell Lymphotropic Virus, Type III/Lymphadenopathy Associated Virus (HTLV-III/LAV) infection. A third focus is the study of the immunological manifestations of HTLV-III/LAV infection with an emphasis on effects of drug abuse on vulnerability, clinical course and outcome of viral infection. A fourth research focus is the clinical epidemiology and natural history of HTLV-III/LAV infection and associated diseases in drug users, their sexual partners and offspring.

Further information and consultation on program requirements can be obtained from:

Sander G. Genser, M.D., M.P.H.
Peter I. Hartsock, Dr.P.H.
Harry W. Haverkos, M.D.
Clinical Medicine Branch
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-08
Rockville, MD 20857
Telephone: (301) 443-1801

TREATMENT OF INTRAVENOUS DRUG ABUSERS TO REDUCE THE SPREAD OF AIDS

DA-87-14

P.T. 34; K.W. 0715120, 0415000, 0745005, 0715020

National Institute on Drug Abuse

Initial application receipt date: April 1, 1987
Subsequent application receipt dates: June 1, October 1, February 1

PURPOSE

The purpose of this announcement is to stimulate research in the treatment of intravenous drug abuse, in order to reduce the spread of acquired immunodeficiency syndrome (AIDS) among intravenous drug abusers. The research will improve the effectiveness of existing strategies and abuse; (2) attracting more intravenous drug abusers into treatment; and (3) preventing relapse following treatment. Both pharmacological and behaviorally-based interventions are encouraged.

Further information and consultation on program requirements can be obtained from:

Chief, Treatment Research Branch
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-30
Rockville, MD 20857
Telephone: (301) 443-4060

STUDIES OF HETEROSEXUAL AND PERINATAL TRANSMISSION OF AIDS ASSOCIATED WITH INTRAVENOUS DRUG ABUSE

DA-87-12

P.T. 34; K.W. 0715120, 0404009

National Institute on Drug Abuse

Initial application receipt date: Aril 1, 1987
Subsequent application receipt dates: June 1, October 1, February 1

PURPOSE

The purpose of this announcement is to stimulate research to study heterosexual and perinatal transmission of AIDS and HTLV-III/LAV (HIV) infection among intravenous drug abusers, their heterosexual partners and their offspring. Such research should lead to an improved understanding of the modes of transmission of HTLV-III/LAV associated with intravenous drug abuse and possibly lead to improved strategies for prevention of AIDS in drug abusing communities.

Further information and consultation on program requirements can be obtained from:

Harry W. Haverkos, M.D.
Peter I. Hartsock, Dr. P.H.
Clinical Medicine Branch
Division of Clinical Research
National Insitute on Drug Abuse
5600 Fishers Lane, Room 10A-08
Rockville, MD 20857
Telephone: (301) 443-1801

RESEARCH ON CLINICAL AND BEHAVIORAL PHARMACOLOGY OF DRUG ABUSE

DA-87-16

P.T. 34; K.W. 0404009, 0710100, 0404000

National Institute on Drug Abuse

Initial application receipt date: April 1, 1987
Subsequent receipt dates: June 1, October 1, February 1

PURPOSE

The purpose of this announcement is to stimulate basic research on behavioral and clinical aspects of drug abuse. Within this general research field, special emphasis is placed on studies of acquisition and elimination of drug-taking behavior and on studies of intravenous drug abuse. Projects involving collaboration between basic and clinical researchers are especially encouraged.

Further information and consultation on program requirements can be obtained from:

Chief, Clinical and Behavioral Pharmacology Branch
Division of Clinical Research
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-16
Rockville, MD 20857
Telephone: (301) 443-1263

STUDIES OF DRUGS OF ABUSE AS POTENTIAL COFACTORS IN THE PATHOGENESIS OF ACQUIRED IMMUNODEFICIENCY SYNDROME

DA-87-20

P.T. 34; K.W. 0404009, 0715120, 0715125

National Institute on Drug Abuse

Initial application receipt date: April 1, 1987
Subsequent application receipt dates: June 1, October 1, February 1

The purpose of this announcement is to stimulate research on the effects of drugs of abuse on the outcome of HTLV-III/LAV infection (Human T-Cell Lymphotropic Virus type III/Lymphadenopathy Associated Virus. The name Human Immunodeficiency Virus (HIV) has been proposed for these viruses by the International Committee on the Taxonomy

of Viruses). Such research should lead to an improved understanding of the

fundamental interactions of HTLV-III/LAV and drugs of abuse in the development of HTLV-III/LAV disease. By identifying cofactors, investigators may be able to define additional opportunities for the prevention of the development of the Acquired Immunodeficiency Syndrome (AIDS).

Further information and consultation on program requirements can be obtained from:

Harry W. Haverkos, M. D.
Sander G. Genser, M.D., M.P.H.
Clinical Medicine Branch
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-08
Rockville, MD 20857
Telephone: (301) 443-1801

DRUG ABUSE TREATMENT RESEARCH GRANTS

DA-87-19

P.T. 34; K.W. 0404009, 0755015, 0415000

National Institute on Drug Abuse

Initial application receipt date: April 1, 1987
Subsequent application receipt dates: June 1, October 1, February 1

PURPOSE

The purpose of this announcement is to stimulate controlled clinical trials and scientifically based outcome evaluation research directed at the treatment of drug abuse and/or drug abuse treatment service systems. Knowledge gained should lead to the improvement of existing treatment systems as well as to development of new and innovative forms of therapy. More specifically, studies focused on one or more components of the treatment process, impacting on well-defined categories of drug abusers, will be considered. These include: 1) screening procedures to identify candidates for treatment or strategies to enhance entrance into treatment; 2) diagnosis to provide individualized profiles of severity of substance abuse and drug-related problems; 3) utilization of diagnostic profiles to determine specific therapeutic interventions to optimize treatment efficacy or effectiveness for identified subgroups; 4) treatment delivery, monitoring, and outcome evaluation; 5) aftercare service and post-treatment followup, or prolonged continued treatment to reduce relapse or recurrence of drug use.

Further information and consultation can be obtained from:

Chief, Treatment Research Branch
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A-30
Rockville, MD 20857
Telephone: (301) 443-4060

ONGOING PROGRAM ANNOUNCEMENTS

RESEARCH GRANTS RELATED TO PAIN AND ANALGESIA

P.T. 34; K.W. 0715150, 0715210, 0785015, 0760055, 0760075, 0740025, 0715120

National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Cancer Institute
National Institute of Dental Research
National Institute of Neurological and Communicative Disorders and Stroke
National Institute on Drug Abuse
National Center for Nursing Research

INTRODUCTION

In May 1985, the Assistant Secretary for Health, DHHS, established the Public Health Service (PHS) Interagency Committee on Pain and Analgesia to provide for the appropriate exchange of information on pain and related activities. One of the purposes of the Committee is to foster collaboration and integration of research programs conducted by the PHS.

The Research Subcommittee of the Interagency Committee organized a workshop of experts to examine the present state-of-the-art in treatment of cancer pain and to determine the status and need for additional research in areas related to the control and management of pain in patients with advanced disease. Their conclusions are relevant to pain relief in other acute and chronic conditions besides cancer. Some of the areas identified as a result of this workshop are described below. Grant applications proposing research in these areas are solicited by the various institutes supporting this announcement.

RESEARCH GOALS AND SCOPE

Much of the material described below deals with chronic pain. In general, chronic pain (especially that arising from deep tissues) and its treatment are poorly understood. Furthermore, there are currently few good models of chronic pain and there is a clear need for more research on chronic pain and its treatment. Some specific areas of interest are described below.

A major challenge lies in understanding pain that responds poorly to opiates and in developing therapies to treat this pain. Opiate-resistant pain is likely to occur when there is a nervous system insult or injury caused by trauma, disease process, or therapeutic intervention. Recent studies suggest that there is CNS reorganization following peripheral and central nerve damage. This reorganization may lead to opiate-insensitive pain. The extent of these reorganizations, the mechanisms responsible for them, and their relationship to pain need to be examined.

Further research is needed to study the pain that develops following chronic inflammation, peripheral nerve damage, tumor invasion, metabolic disease, or some kinds of trauma. The chemical mediators of such pain have not been identified and the basis for nociceptor activation is not yet clear. Identification of the mediators and mechanisms of activation may permit development of drugs interfering with their actions.

Pain arising in the viscera is not well understood. In order to provide a rational basis for the development of new therapies, the peripheral and central pathways and mechanisms mediating visceral pain need to be studied. Most importantly, therapies to relieve visceral pain, especially the visceral pain due to chronic disease, need to be developed.

The mechanisms of action of available unconventional (i.e., non-opiate) analgesics need to be elucidated and their appropriate use described. Similarly, well controlled studies of nonpharmacological approaches for the activation of the brain's own pain-suppressing mechanisms are needed, including: hypnosis, behavior modification, biofeedback, transcutaneous electrical stimulation, acupuncture, psychotherapy, etc. In addition, studies that examine the "match" of various behavioral approaches to particular pain problems are needed. Effects of these measures in augmenting drug action should also be studied.

Further studies are needed to compare and evaluate the effects of opiate drugs during long-term repeated use in non-addict human populations. There is a need to examine the effects of multiple-dosing of opiates in cancer patients and chronic pain patients since almost all of the previous analgesia data are based on single-dose studies. There is a need to examine the pharmacokinetics of these drugs following long-term multiple dosing.

Further studies are necessary to compare analgesic levels attained with different routes of administration of opiates. For delivery systems using chronic infusions of opiates, the relative efficacy and tolerance liability of continuous versus pulsatile injection has yet to be determined. Now in an early stage of development, transdermal delivery of analgesics for acute and chronic pain has promise, particu-larly for children, but requires further study.

The efficacy and appropriate use of the intrathecal route of administration for both short- and long-term use has not yet been determined. Appropriate drugs for intrathecal administration are still not known. Morphine, for example, has been approved for intrathecal use under some conditions, but its relatively poor lipid solubility suggests that it may not be the best opiate drug to use by this route. The involvement of noradrenergic, serotonergic and peptidergic systems in analgesia produced by a variety of manipulations suggests that many agents should be tested by intrathecal administration for their short- and long-term analgesic efficacy. Combinations of analgesic drugs (especially non-opiates) with reduced ability to produce tolerance and dependence are particularly sought.

Continued research into the techniques of the measurement of pain and of its relief in the clinical setting is also encouraged. There have been recent advances in the development of a variety of assessment tools, including: verbal descriptor assessment, combined qualitative and quantitative measures, self reporting techniques, and behavioral measurement, among others. Because both research and clinical assessment of analgesic effectiveness depend upon valid and precise measurement tools, continued progress is needed in this area. Thus, studies of measurement drawing upon human clinical, human laboratory, and animal laboratory studies are encouraged. Of further interest are the social and psychological factors altering pain tolerance. Such studies should include genetic and environmental factors along with psychological characteristics that may render individuals more vulnerable to pain.

A particular problem appears to be the treatment of children in pain. We have only incomplete knowledge about the actions of analgesic drugs in the very young and further studies are needed in this area. Moreover, we have few tools to assess pain in young children especially those without well developed verbal skills. In order to improve the treatment of pain in these children, it is essential to improve our ability to measure it. Studies of pain management in children with both acute and chronic pain are therefore encouraged.

Although some specific areas of research have been identified, the applicant is by no means restricted to these avenues of pursuit; any innovative endeavors in pain or analgesia research with potential clinical relevance are encouraged.

REVIEW PROCEDURES AND CRITERIA

Applications should be prepared on Form PHS 398 following regular instructions contained in the application kit and supplementary instructions, if any, from the awarding institute. Submitted applications will be assigned by the Division of Research Grants to awarding units and for peer review in accordance with the usual Referral Guidelines. Applications will be reviewed for scientific merit and relevance to program goals in accordance with the standard review procedures of the NIH, ADAMHA, FDA, etc.; that is, each application will be assessed first for scientific merit by a group of mostly non-Government scientists having appropriate expertise and then for both scientific merit and program relevance by the appropriate National Advisory Council.

Applicants may request amounts commensurate with the objectives to be accomplished for a period not to exceed five years. The support mechanism referred to in this announcement will be the grants-in-aid and the awards will be made to those applicants who have successfully competed with all applicants for funds from the sponsoring program of the awarding institute.

The phrase "Prepared in Response to the Program Announcement for Pain and Analgesia" should be typed in item 2 of the first (face) page of the application.

MECHANISMS OF SUPPORT

The mechanism of support for this program will be the grant-in-aid. Regulations (Code of Federal Regulations, Title 42, Part 52 and, as applicable to the state and local governments, Title 45, Part 74) and policies which govern the research grant programs of the NIH and ADAMHA will prevail. It must be pointed out that there are no special funds set aside by the PHS or operating agencies for this activity. Each application received in response to this announcement will be assigned to an appropriate research component of the PHS, depending upon the subject proposed and the categorical interest of the PHS unit.

Applications may be submitted for (1) individual research project grants (R01, R29, etc.), or (2) program project grants (P01).

1 Applicants may propose individual research projects involving clinical and/or investigational aspects of pain and related areas. Deadlines for receipt of project grant applications are the same as for program project given below.

2 Program projects may include clinical research as well as related experimental approaches, to carry out the desired research objectives. Applicants should develop a comprehensive research program, each phase to be directed to a specific aspect of pain. Potential applicants are encouraged to consult with the appropriate awarding program representative (listed below) as early as possible in the planning stages to obtain the specific application and review guidelines and the counsel of the awarding program representatives. Investigators are advised that the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMSD) will not support program project grants. Deadlines for receipt of the program project and individual research applications are February 1, June 1, and October 1.

In addition to their regular grant-supported activities, NIH and ADAMHA also support research training programs. Scientists in early stages of post-doctoral career development are encouraged to apply for either an individual fellowship (F32) or for support from organizations having institutional training grants (T32). There are also important relevant career development programs, collectively "K" Awards. These are development awards made primarily to enhance the research potential of young scientists, who are aspiring to make research the primary goal of their academic career. Information about these training and career development programs may be obtained from the respective program representative listed at the end of this announcement.

Applicants from institutions which have a General Clinical Research Center (GCRC) funded by the NIH Division of Research Resources may wish to identify the GCRC as a resource for conducting the proposed research. In such cases, a letter of agreement from the GCRC Program Director should be included in the application material.

Completed applications should be submitted according to the deadlines for the review schedule mentioned above and also supplied in the application kit and mailed to the following address:

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

INQUIRIES AND CORRESPONDENCE

The names and addresses of program representatives managing pain programs of various institutions are given below. Applicants needing further information may contact the staff members listed representing his/her area of research interest.

Dr. Lawrence M. Petrucelli
Director, Arthritis Program
National Institute of Arthritis and Musculoskeletal
and Skin Diseases, NIH
Westwood Building, Room 405
Bethesda, Maryland 20892
Telephone: (301) 496-7326

Dr. Carrie P. Hunter
Program Director, Community Oncology and
Rehabilitation Branch
National Cancer Institute, NIH
Blair Building, Room 7A15
Bethesda, Maryland 20892-4200
Telephone: (301) 427-8708

Dr. Patricia S. Bryant
Craniofacial Anomalies
Pain Control and Behavioral Research Program
National Institute of Dental Research, NIH
Westwood Building, Room 506
Bethesda, Maryland 20892
Telephone: (301) 496-7807

Dr. Kenneth Surrey
Demyelinating, Atrophic and Dementing Disorders Program
National Institute of Neurological and Communicative
Disorders and Stroke, NIH
Federal Building, Room 706
Bethesda, Maryland 20892
Telephone: (301) 496-1431 and

Stroke and Trauma Program
National Institute of Neurological and Communicative
Disorders and Stroke, NIH
Federal Building, Room 8A12
Bethesda, Maryland 20892
Telephone: (301) 496-4226

Dr. David P. Friedman
Director, Pain Research Program
Neurosciences Research Branch
Division of Preclinical Research
National Institute on Drug Abuse
5600 Fishers Lane, Room 10A31
Rockville, Maryland 20857
Telephone: (301) 443-6975

Dr. Susan I. Blumenthal
Chief, Behavioral Medicine Program
National Institute of Mental Health
5600 Fishers Lane
Room 11C06
Rockville, Maryland 20857
Telephone: (301) 443-4337

Dr. Patricia McCormick
Chief, Acute and Chronic Illness Branch
National Center for Nursing Research, NIH
Building 38A, Room B2E17
Bethesda, Maryland 20894
Telephone: (301) 496-0526

These programs are described in the Catalog of Federal Domestic Assistance (Nos. 13.242, 13.279, 13.361, 13.399, 13.844, 13.846, 13.852 and 13.853). 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.

MOLECULAR BIOLOGY OF SKELETAL MUSCLE AND ITS DISEASES

P.T. 34; K.W. 0705050, 0710030, 1002008

National Institute of Arthritis and Musculoskeletal and Skin Diseases

The Muscle Biology Program supports research on the structure, function, disorders and diseases of skeletal muscle. This program announcement is to encourage submission of scientifically meritorious grant applications in the specific area of the molecular biology of muscle, including genetics relating to normal development and disease.

Certain muscle diseases, such as Duchenne Muscular Dystrophy (DMD), dystrophic myotonia, and malignant hyperthermia have specific genetic etiologies. Examples of faulty genetic expression are known to occur in muscle fibers affected by myotonic dystrophy and avian muscular dystrophy, where there are high levels of multiple expression or abnormal expression of neonatal myosin heavy chain. The complexity of skeletal muscle has made it difficult to identify the alteration in the genes or genomic transcription responsible for particular disorders. A confounding feature of muscle is the diversity of products from single genes, which appears to involve splicing in certain cases. Understanding the mechanisms of control may enable us to prevent expression of a defective gene or gene product.

Current genetic techniques promise to allow identification of genes or gene products which may underlie many muscle diseases. Advances in recent years indicate that there are research opportunities in this area, including the isolation of genes near the locus for Duchenne Muscular Dystrophy. Other researchers are investigating methods of variable genetic expression in normal muscle tissue. There is a need to understand the molecular biology of development in normal and diseased muscle.

This announcement encourages research applications focussed on genes of normal skeletal muscle constituents and mechanisms of gene regulation and expression; altered genes and proteins associated with muscle diseases and disorders; and other aspects of the molecular biology of skeletal muscle development and structural organization, including protein function.

ELIGIBILITY

Non-profit organizations and institutions, governments and their agencies, for-profit organizations, and individuals are eligible to apply.

DEADLINE

Applications will be accepted in accordance with the announced receipt dates for new applications, listed in application kits.

REVIEW PROCEDURES AND CRITERIA

Applications should be submitted on form PHS-398 which is available in the institution's collaborative research or business office. Additional application kits may be obtained from the Office of Grants Inquiries, Division of Research Grants (DRG), NIH. The phrase "Prepared in Response to Research Grants Announcement on Molecular Biology of Skeletal Muscle and Its Diseases" should be typed on line 2 of the first page of the application. The original and six copies of the application should be sent to:

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

Applications in response to this solicitation will be reviewed on a nationwide basis in competition with other research grant applications, and in accord with the usual NIH peer review procedures. Applications will first be reviewed for technical merit by Study Sections and then by the National Advisory Council. The review criteria customarily employed by the NIH for regular research grant applications will prevail.

All PHS and NIH grant policies governing regular research project grants, including cost sharing, apply to applications received in response to this program announcement.

For further information contact:

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National Institute of Arthritis and
Musculoskeletal and Skin Diseases
Westwood Building, Room 403
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AGE, HEARING, AND SPEECH COMPREHENSION

P.T. 34; K.W. 0710010, 0775005, 0710120

National Institute on Aging

The National Institute on Aging (NIA) invites qualified researchers to submit grant applications for research projects designed to examine the nature and extent of age-related differences and changes in older people's hearing and understanding of everyday speech.

In old age the auditory system is often characterized by a bilateral decrease in sensitivity, predominantly to high frequency sounds, and increased difficulty in understanding speech, particularly in the presence of background noise. Further studies are sought on older people's hearing and understanding of speech--that is, on how speech signals and information are detected, perceived, interpreted, and responded to in later life. Most importantly, speech comprehension should be scrutinized in the light of older people's experiences and expectations and within the contexts of their everyday lives at work, in the household, and in the community. Such research will contribute to the hearing sciences from both the behavioral and the aging perspectives. The aim is to provide a knowledge base for preventing auditory deterioration, for designing devices and environments that can compensate for auditory deterioration when it does occur, and for helping impaired individuals to make full use of their residual hearing.

This announcement of NIA's special initiative on understand-ing speech supplements, but does not replace, NIA's broad announcement on HEALTH AND EFFECTIVE FUNCTIONING IN THE MIDDLE AND LATER YEARS (See NIH GUIDE FOR GRANTS AND CONTRACTS, VOL. 12, NO. 6, JUNE 17, 1983, pp. 10-15; see also pp. 5-9). This initiative is coordinated with related programs in the National Institute of Neurological and Communicative Diseases and Stroke.

BACKGROUND

Increases in longevity portend increased risk of deficiencies in the understanding of everyday speech. While the course and extent of the problem have not been completely documented, it is clear that many people must adjust to some reduction in auditory function as they grow older. Changes in audition with aging substantially alter the quality of individuals' lives. Not only listening and understanding, but

also occupational involvement, performance of everyday skills such as telephoning, social participation, psychological well-being, even survival, are dependent upon a complex chain of auditory processes, beginning with the ear and extending to perceptual and cognitive processes in the brain. All these processes are subject to change with aging, but the details have not been fully explicated.

Moreover, individuals differ widely in nature and degree of age-related change in speech comprehension, a fact which leads to the search for complex explanatory factors: genetic or neurophysiological processes, personal differences in life experiences or cognitive styles, as well as social and cultural differences in expectations and opportunities for performance. Such explanations can be useful in maintaining productivity, effective functioning, and independence throughout the middle and later years of life.

The agenda for research on the processes involved in speech comprehension and their age-related changes has been set by NIA in cooperation with Working Group 93 of the Committee on Hearing, Bioacoustics and Biomechanics, National Research Council, National Academy of Sciences. Recommended as background reading in preparing applications is the 1986 report of the Committee entitled "Speech Understanding and Aging." This report discusses factors affecting the elderly individual's ability to understand speech, including physiological aging, changes in cognitive ability, noisy signals, and sensory aids. It may be obtained from the Committee on Hearing, Bioacoustics and Biomechanics, National Research Council, National Academy of Sciences, 2101 Constitution Ave., NW, Washington, D. C., 20418, or from the Behavioral Sciences Research Program, NIA, Bethesda, MD, 20892. (Also see Olsho, L. W., Harkins, S. W., and Lenhardt, M. L., Aging and the Auditory System, in HANDBOOK OF THE PSYCHOLOGY OF AGING, eds., James E. Birren and K. Warner Schaie, pp. 332-377, New York, Van Nostrand Reinhold, Co., 1985; Pickett, J. M., Bergman, M., and Levitt, H., Aging and Speech Understanding, in SENSORY SYSTEMS AND COMMUNICATION IN THE ELDERLY, Aging, Vol. 10, eds., J. M. Ordy and K. Brizzee, pp. 167-186, New York, Raven Press, 1979.)

SPECIFIC OBJECTIVES

The NIH seeks research grant applications aimed at the study of selected aspects of speech comprehension as it relates to aging. Of interest are studies of the auditory nervous system, cognitive processes that are utilized in the service of speech comprehension, speech characteristics and environmental conditions and human factors that interfere with or enhance comprehension, and compensatory and rehabilitative aids. The following are offered as illustrations of appropriate topics, though applications need not be limited to these issues.

Few studies exist about the way which the auditory nervous system changes as people get older. Most of these studies are descriptive rather than reporting scientifically controlled research; most lack auditory histories, quantitative techniques, or adequate numbers of subjects of varied ages. Actual correlations between function and structure are not available. Examples of topics that need to be studied are:

- Anatomical description and analysis of central auditory pathway in human and nonhuman subjects of various ages for which auditory or neurological histories are available.
- Relative effects of sensory, neural, strial, and cochlear presbycusis on understanding speech as a function of age.
- Identification of nonhuman species in which age-related changes in hearing are analogous to those occurring in humans.

A person's understanding of speech is dependent in part on cognitive, affective, and other psychological processes. Research is needed on the effects on speech comprehension of age-related changes in:

- Particular aspects of cognitive processing (like attention, working and episodic memories, or verbal ability).
- Ability to use semantic integration, inference, or decision-making in interpreting incomplete or confused auditory signals.
- Affect, motivation, or self-perception of hearing handicap as interrelated with sensory or cognitive processes.

Characteristics of speech, and the background against which they are heard, influence their identification and comprehension. Moreover, differences in social and environmental demands determine whether or not particular auditory losses constitute handicaps. Given particular deficits in an older person's hearing or cognition, how is speech comprehension affected by:

- o Content of the speech, complexity of syntax, speed of delivery, clarity of diction.
- o Level of background or noise spectrum, seating arrangements, social and environmental factors affecting acoustics.
- o Functional demands and safety of particular tasks in the home, or workplace, and in situations of transportation, leisure, and rehabilitation.

Hearing tests provide information about the degree of hearing impairment, but are not sufficient to determine how the impairment affects everyday communication. Full assessment of hearing impairment requires design of supplementary tests of other factors that collectively determine the actual degree of hearing handicap. Moreover, systematic studies have not been made of the effectiveness in everyday speech comprehension of hearing aids or other available special-purpose devices (such as group listening systems, implanted electrodes, and tactile vibrators). Topics for research include:

- o The influence of lip-reading skills, attention, or motivation on hearing test performance.
- o The relative effectiveness of particular auditory vs. non-auditory communication aids.
- o The influence of self-perceived handicap or of social or occupational demands on willingness to use particular devices.

REVIEW CRITERIA

Applications compete on the basis of scientific merit with all other applications before the NIA. The review criteria are the traditional considerations underlying scientific merit. Research applications need not be limited to any particular methodology of data collection or analysis. Designs may include demographic studies, cohort and longitudinal designs, multivariate analyses, or controlled experiments. Research should be done in representative real-life settings or under conditions that allow generalization to real-life settings or tasks. Multidisciplinary teams of researchers may be required, composed of hearing scientists (including biologists, otolaryngologists, sensory psychologists or audiologists) in collaboration, e.g., with psychologists concerned with broad perceptual or cognitive processes, or with social or human-factors scientists concerned with the match between performance and specific aspects of everyday settings.

APPLICATION PROCEDURES

Researchers considering submitting an application in response to this announcement are strongly encouraged to discuss their project, and the range of grant mechanisms available, with NIA staff in advance of formal submission. This can be done either through a telephone conversation or through a brief letter of intent describing the proposed project and identifying the principal investigator and, when known, other key participants.

Applicants should use the regular research project and program project grant application form (PHS 398), available at the applicant's institutional Application Control Office or from the Office of Grants Inquiries, Division of Research Grants, NIH (see address below). In order to expedite the application form's routing within NIH, please (1) check the box on the face sheet of the application indicating that your proposal is in response to this announcement and print (next to the checked box) NIA: AGE, HEARING, AND SPEECH COMPREHENSION and (2) enclose a cover letter repeating that your application is in response to this announcement. In assigning applications to NIA or other Institutes, accepted referral guidelines will be followed.

Mail the cover letter and the completed application (with 6 copies) to:

Division of Research Grants
National Institutes of Health
Westwood Building - Room 240
5333 Westbard Avenue
Bethesda, Maryland 20892
Telephone: (301) 496-7441

Receipt dates for the Research Project Grant, the Research Program Project Grant, and the First Independent Research Support and Transition Award applications are February 1, June 1, and October 1; those for the National Research Service Awards applications are January 10, May 10, and September 10.

Correspondence and inquiries should be directed to:

Dr. Leonard Jakubczak
National Institute on Aging
Attention: "Age, Hearing, and Speech Comprehension"
Building 31C - Room 4C32
Bethesda, Maryland 20892
Telephone: (301) 496-3136

This program is described in the Catalog of Federal Domestic Assistance No. 13.866, Aging Research. 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 Health Systems Agency review.

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