NIH Guide
for Grants and Contracts

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U.S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES

IN THIS ISSUE:

Continued

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

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

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

NOTICE

NATIONAL CANCER INSTITUTE SHORT TERM RESEARCH EXPERIENCE FOR STUDENTS IN HEALTH PROFESSIONAL SCHOOLS

P.T. 34, 40; K.W. 0710030, 0720005

NATIONAL CANCER INSTITUTE

This is a reminder that the National Cancer Institute (NCI) supports short-term research experiences for students of medical and dental schools through the R25 Cancer Education Program Grants. Also, please note that a R25 applicant need not engage in the curriculum development activity described in past R25 guidelines in order to apply for support short-term research experiences for health professional students or prebaccalaureate minority students, or for continuing education medical activities. Additional information may be obtained from:

Program Director
Cancer Training Branch, DCPC
National Cancer Institute, NIH
Blair Building - Room 424
Bethesda, Maryland 20205-4200

Telephone: (301) 427-8898

NOTICE

NIA MORATORIUM ON SMALL RESEARCH GRANT APPLICATIONS

P.T. 34; K.W. 0710010, 0710030

NATIONAL INSTITUTE ON AGING

Effective immediately the National Institute on Aging (NIA) is placing a moratorium on acceptance of Small Research Grant applications (R03). NIA will schedule review and award for small grant applications submitted for the February 1, 1985 deadline within six months of receipt as announced in the NIH Guide for Grants and Contracts Vol. 14, No. 2, February 1, 1985. Should the Institute's priorities permit resumption of expedited review, a new announcement will be published in the Guide.

ANNOUNCEMENT

HYBRIDOMA DATA BANK

P.T. 36; K.W. 0760030, 0780015, 1004008

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

The National Institute of Allergy and Infectious Diseases (NIAID) announces the international availability of a new public resource, a computerized registry of data concerning cloned cell lines and their immunoreactive products. Data for the bank are being obtained from the scientific literature, individual investigators, and commercial suppliers of immunoreactive materials. The development of the Hybridoma Data Bank (HDB) was coordinated through the International Council of Scientific Unions' Committee on Data for Science and Technology (CODATA) and the International Union of Immunological Societies (IUIS). Support for the CODATA-IUIS HDB is being provided by the NIAID, National Cancer Institute, National Institute of Dental Research, National Institute of General Medical Sciences, Division of Research Resources, Food and Drug Administration, Department of Agriculture, National Science Foundation, the American Type Culture Collection, the World Health Organization, and by scientific organizations within the governments of Canada, France, Japan, Switzerland and the United Kingdom.

International in scope, three identical copies of the data in the HDB will be housed on mainframe computers at the National Institutes of Health, Japan's Institute for Physical and Chemical Research and at a location in Western Europe currently being developed. At this time, the HDB is actively soliciting data from developers of cell lines and immunoreactive products for inclusion in the bank; its services are now being provided without cost to the scientific community in response to specific inquiries.

For further information, write to:

CODATA-IUIS HYBRIDOMA DATA BANK
American Type Culture Collection
12301 Parklawn Drive
Rockville, Maryland 20852
USA

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA

85-HD-09

NON-INVASIVE ASSESSMENT OF THE NORMALITY OF SINGLE PRE-GASTRULA EMBRYOS

P.T. 34; K.W. 0413002, 1002017, 1013039, 1002024, 0755040, 1002059, 1002034, 1007009

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Application Receipt Date: July 15, 1985

The Reproductive Sciences Branch (RSB), of the Center for Population Research (CPR), of the National Institute of Child Health and Human Development (NICHD), announces the availability of a Request for Applications (RFA), on rapid non-invasive assessments of the normality of single pre-gastrula embryos. The purpose of this program is to provide one or more methods of determining the probability that an individual egg or embryo will undergo normal development, safe transfer and successful implantation after in vitro fertilization and embryo culture. The need for such methods arises from the frequent observations that embryos maintained in vitro are inferior to those raised in vivo and result in a low rate of successful pregnancies.

Examples of the non-invasive assessments that could be useful include: direct observations through microscopic means or other highly sensitive sensors of the activities or properties of living cells; uptake of natural compounds, such as micronutrients measured by depletion of compounds from culture media; release or secretion of compounds from embryos into the medium; degradative enzyme activity measured by digestion of substrates in the medium; transient, non-invasive assays of cell-surface molecules. Although the primary focus of this RFA is upon mammalian eggs and embryos (small laboratory mammals, non-human primates, farm animals, others), RSB also wishes to encourage research on non-mammalian models that could make unique contributions to the stated purpose. This announcement may be of particular interest to investigators who are using gene transfer into eggs and/or early embryos, twinning experiments, reproductive toxicology experiments and a variety of other experiments on the biochemical, physiological, morphological, genetic and molecular aspects of early mammalian development where eggs or embryos are maintained in vitro for any length of time.

This program is described in the Catalog of Federal Domestic Assistance No. 13.864, Population 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 the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review.

This program will be funded through the regular research grant (R01) award program of the NICHD. Grant applications will be reviewed as a single competition by an initial review group convened to review these applications. It is anticipated that 8-10 grants will be awarded.

Requests for copies of the full RFA should be addressed to:

Richard J. Tasca, Ph.D.
Reproductive Sciences Branch
Center for Population Research
National Institute of Child Health
and Human Development
Landow Building - Room 7C33
National Institutes of Health
Bethesda, Maryland 20205

Telephone: 301/496-6515

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS: RFA

85-HD-10

DEFINING AND SUBTYPING DYSLEXIA*

P.T. 34; K.W. 0715090, 0507005

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Application Receipt Date: September 15, 1985

I. SCIENTIFIC PROGRAM OBJECTIVES

The National Institute of Child Health and Human Development (NICHD), through the Human Learning and Behavior Branch (HLB), Center for Research for Mothers and Children (CRMC) invites program project applications (P01) for research programs which focus upon children who have inexplicable difficulty learning to read. Research applications should provide a plan for developing tests and measures of reading disability which will lead to standardization of criteria for selecting subjects for study. These criteria will provide bench mark indices for generating a cohesive data base which can be used to establish a biological and behavioral classification system for the reading disabilities.

II. MECHANISM OF SUPPORT

Multidisciplinary research on dyslexia (or specific reading disability) will be supported through the program project grant mechanism (P01).

*For purposes of this document, dyslexia and specific reading disability are equivalent terms.

This program is described in the Catalog of Federal Domestic Assistance under No. 13.865, Research for Mothers and Children. Awards will be made under authority of the Public Health Service Act, Title III, Section 301 (P.L. 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.

For further information, potential applicants may call or write to:

Dr. David B. Gray, HSA
Human Learning and Behavior Branch
Center for Research for Mothers and Children
National Institute of Child Health
and Human Development
Landow Building - Room 7C18
National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20205
Telephone: (301) 496-6591

*For purposes of this document, dyslexia and specific reading disability are equivalent terms.

ANNOUNCEMENT

PARTICIPANTS SOUGHT

NATIONAL COLLABORATIVE CHEMOPREVENTION PROJECTS

P.T. 34; K.W. 0715035, 0740020, 0755025, 0710080, 0710100, 1003012, 1002008, 0710070, 0785165, 0755010

DIVISION OF CANCER ETIOLOGY

NATIONAL CANCER INSTITUTE

Chemoprevention is an important part of the National Cancer Institute (NCI) strategic plans. In the Division of Cancer Etiology (DCE), individual research grants and contracts are supporting efforts addressing fundamental issues in chemoprevention, such as the synthesis and discovery of anticarcinogenic agents, their efficacy in anticarcinogenesis, and the determination of their basic mechanisms of action. Many classes of chemopreventive agent are under investigation in numerous biological systems, and of these, a significant number appear promising for further development. In this regard, experience suggests that effective exploitation of new knowledge applicable to cancer prevention often requires diverse laboratory research expertise and material resources beyond the scope of most individual grants and contracts, and in many cases, beyond the capacity of single organizations. For these reasons, a request for applications (RFA) will soon be issued for National Collaborative Chemoprevention Projects (NCCPs) which are conceived as new approaches to cancer prevention in order to: acquire basic knowledge in significant biological systems for carcinogenesis/anticarcinogenesis; derive new insights into practical means for chemoprevention of the carcinogenic process; and rapidly translate these understandings into new chemopreventive entities with known ranges of efficacy and defined pharmacologic/toxicologic properties.

The Chemical and Physical Carcinogenesis Branch (CPCB), DCE, NCI is proposing to establish the NCCPs with funding provided through the cooperative agreement mechanism. The cooperative agreement is an assistance mechanism in which the Government component (NIH, NCI) making the award anticipates substantial programmatic involvement with the recipient during performance of the planned activity. Choice of actual funding mechanism will be made prior to issuance of the RFA. Each NCCP would consist of a number of laboratory research programs representing diverse scientific disciplines and expertise, such as experimental carcinogenesis, pharmacology, toxicology, medicinal and organic chemistry, molecular and cellular biology, biochemistry, immunology and pathology. Scientists in a given Project could derive from any combination of the academic, non-profit, and for-profit communities. Scientists in an NCCP could also be drawn from a single organization possessing necessary diversity and indepth expertise to accomplish Project objectives. Each Project is envisioned to consist of a Project Director, Program Leaders in several broad scientific disciplines and an NCI Coordinator. The Project Director has the responsibility for organizing the Project, assembling the multidisciplinary group of Program Leaders, preparing the cooperative agreement application and serving as Principal Investigator. This individual provides scientific and administrative leadership and, in addition, is expected to provide a laboratory program. A high degree of interaction and focus are expected in Project efforts.

It is anticipated that the scope of an individual NCCP might include: (1) in vivo efficacy determinations in significant biological models employed in carcinogenesis studies; (2) demonstration of feasibility of any in vitro bioassays employed, as related to in vivo carcinogenesis/anticarcinogenesis; (3) pharmacologic investigations of absorption, distribution, metabolism, and excretion with attention to dose/response relationships or investigations on the range of agent activity relative to organ sites at which chemoprevention is demonstrable and carcinogens/promoters against which activity exists; c) investigations characterizing the toxicologic properties of the agent; (4) biochemical investigations on mechanisms of action; and (5) investigations on structure-activity relationships elucidating chemical/structural features for agent efficacy, toxicity and pharmacologic properties.

The purpose of this initial announcement is to allow outstanding scientists who are interested in participating in the proposed Projects (either as Project Directors or Program Leaders) to identify themselves. The CPCB will organize and distribute this information within 30 days of closing to all who respond to this announcement. It is expected that this procedure will facilitate the efforts of individual scientists and organizations to identify other interested parties and to form strong interdisciplinary groups for the submission of applications for NCCPs. This present announcement is intended only to facilitate the formation of the Projects. An RFA will be issued shortly outlining the specifics of the National Collaborative Chemoprevention Projects. This RFA will be available to all investigators (organizations) as potential RFA responders whether or not they respond to the current announcment. The NCI will play no role in the formation of the Projects other than to distribute the information indicated above.

Scientists interested in participating in a NCCP, either as a Project Director or a Program Leader, should submit only the following information which will be tabulated and sent to investigators supplying information:

1) Name
2) Organization (including Department, mailing address and telephone number)
3) Scientific discipline
4) Participation interest (Project Director and/or Program Leader)
5) At the responder's option, one or two lines (more will be deleted) of brief descriptive information detailing the nature of the interest in participation. This might be simply a few keywords, if desired, such as: pancreas/anti-oxidants/structure activity/in vivo; or: mammary gland/hormonal/differentiation/any agents(s)

This information should be sent by June 3, 1985 to:

Carl E. Smith, Ph.D.
Program Director
Biological and Chemical Prevention
Chemical and Physical Carcinogenesis Branch
Division of Cancer Etiology
National Cancer Institute
Landow Building - Room 9B-06
Bethesda, Maryland 20205

Telephone: (301) 496-4141

ANNOUNCEMENT

NCI COMPREHENSIVE MINORITY BIOMEDICAL PROGRAM

MINORITY INVESTIGATOR SUPPLEMENT (MIS)

P.T. 34, FF; K.W. 0715035, 0710030

NATIONAL CANCER INSTITUTE

I. DESCRIPTION

As part of the Comprehensive Minority Biomedical Program (CMBP), the National Cancer Institute (NCI) provides support for minority researchers in the form of the Minority Investigator Supplement (MIS).

Domestic research institutions already receiving NCI grants and interested in including minority researchers in their cancer research may submit an MIS application for this purpose. Approved applications will be funded as supplements to previously peer reviewed active grants. These may include, but are not limited to, individual project (R01) and program project (P01) grants.

II. OBJECTIVES

The CMBP provides support to minority scientists to assist in providing increased opportunities for enlarging their capabilities in cancer related research in order to influence minority scientists to develop independent careers as cancer investigators, while furthering the objectives of the parent grant.

III. PROJECT EVALUATION AND REVIEW CRITERIA

The NCI Program Director, in conjunction with the Cancer Minority Program Advisory Committee (CMPAC), will determine the appropriateness of the supplement to the grant and eligibility of the Minority Investigator using the following criteria:

1. The proposed research as described in the supplemental application should fit within the scope of the approved and funded project. If this is not the case, additional technical merit review will be required.

These programs are described in the Catalog of Federal Domestic Assistance Nos. 13.396, Cancer Biology; 13.393, Cancer Cause and Prevention Research; 13.399, Cancer Control; 13.394, Cancer Detection and Diagnosis Research; 13.395, Cancer Treatment 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 the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review.

2. The Minority Investigator's curriculum vitae should indicate that he/she has had appropriate research experience.

3. If the Minority Investigator has already spent an extended period of time in the applicant's laboratory, additional time should be justified.

4. The Principal Investigator and the Minority Investigator should demonstrate a clear understanding of the objectives of the MIS.

5. The length of time requested for achieving the objectives of the Supplement should be justified.

Following consideration by the NCI CMPAC, any application requiring additional technical merit review will be deferred for traditional peer review before any further consideration by CMPAC or the National Cancer Advisory Board.

IV. ELIGIBILITY

Any domestic institution with an active cancer research grant is eligible to submit a supplemental application on behalf of a principal investigator for the exclusive purpose of including minority researchers in the project.

A. Minority Investigator - a Minority Investigator (MI) may be described as a U.S. citizen from an under-represented ethnic American nationality (e.g., Black, Hispanic, Native American, Asian or Pacific Islander). The MI is expected to provide a complete curriculum vitae which includes a list of any research publications. The MI(s) may be affiliated with the applicant institution(s) or some other institution. The MI should not have spent an extended period of time in the applicant laboratory and should not have been an independent investigator on any traditional grant mechanism from NIH or other funding organization. This does not exclude MI(s) who have been supported by the NIH Minority Biomedical Research Support (MBRS) Program or similar program. The program is not intended to pay stipends for student trainees or support candidates without any research background. The investigator must be willing to devote a minimum of 30 percent of his/her time to the research project.

B. Research Project - the proposed research project for the supplement must be closely related to the currently funded research grant. It may represent an increased effort in an already approved objective of the research project or propose to enhance the effectiveness of the overall research. The nature of the research should provide the MI an opportunity to contribute intellectually to the program and to broaden his/her own potential. The scope of the project will generally be comprehensive enough to require at least two years for completion and the supplemental application should include such a research plan and projected budget sheets. With appropriate justification a one-year application may be acceptable. No new supplemental applications will be accepted in the final year of a current award.

V. FUNDING

Funding will be made in accordance with the usual NIH policy for supplements. Awards will be issued on an annual basis. Continuing support for the second (or subsequent) year will depend upon approval of a satisfactory annual progress report

and proposed budget from the MI submitted with the principal investigator's non-competing continuation application. Funding for the supplement is always contingent on funding of the parent grant. Each MI budget shall not exceed $25,000 in direct costs and may not include equipment. Supplemental awards made under this program are for the sole purpose of facilitating participation by MI(s) as described above.

VI. HOW TO APPLY

All potential applicants are encouraged to call the NCI Minority Program office at (301) 496-7344 to receive complete clarification of any of the items noted above.

The Principal Investigator and the Minority Investigator should submit a supplemental grant application through the institution on the Standard Form PHS 398, limited to the following: (1) face page, at the top of which the applicant must designate the grant number of the active grant and specifically state **"Minority Investigator Supplement"** (for example, Grant Number CA-12345-02 "Minority Investigator Supplement"); (2) budget page (excluding equipment); (3) biographical sketch of the Minority Investigator; (4) outline if the research project as it relates to the parent grant; and (5) as part of the Significance section, the application should include a statement from the Minority Investigator outlining his/her research objectives and career goals and statement from the Principal Investigator describing how this research experience will expand the capabilities and foster the independent career of the Minority Investigator.

Applications received fewer than 90 days prior to a scheduled NCAB meeting may be reviewed at the subsequent NCAB meeting.

The original and four (4) copies of the application should be sent to:

Division of Research Grants
National Institutes of Health
Westwood Building - Room 240
Bethesda, Maryland 20205

Please send two (2) copies to:

CMBP Program Director
Comprehensive Minority Biomedical Program
National Cancer Institute
Building 31 - Room 10A04
9000 Rockville Pike
Bethesda, Maryland 20205

ANNOUNCEMENT

NCI COMPREHENSIVE MINORITY BIOMEDICAL PROGRAM

MINORITY SATELLITE SUPPLEMENT

P.T. 34, FF; K.W. 0715035, 0755015, 0415000

NATIONAL CANCER INSTITUTE

I. DESCRIPTION

The National Cancer Institute (NCI) seeks to promote the participation of minority patients in clinical trials and other treatment programs at hospitals and institutions which serve large or predominantly minority populations through the Minority Satellite Supplement (MSS) of the Comprehensive Minority Biomedical Program (CMBP). This NCI interdivisional initiative seeks to identify institutions which could function as cooperative satellites of existing cooperative clinical trials groups and centers. The thrust of the initiative is to enter minority patients in an expanded and organized fashion, into clinical cancer treatment protocols. The improved level of cancer treatment should be reflected in improved survival and cure rates in minority cancer patients. A supplement would provide funding for data management and other relevant expenses. Currently funded clinical trials groups and centers interested in increasing minority patient enrollment into well-designed and well-implemented clinical trials may submit a supplemental application for this purpose.

II. OBJECTIVES

The NCI is committed to reducing cancer mortality by 50 percent by the year 2000. In order to achieve this objective, the Clinical Trials Research Network will be expanded to access a greater number of patients into programs researching the latest and most effective cancer treatment. Critical to this goal is the delivery of state-of-the-art cancer treatment to underserved minority populations. Cancer survival statistics verify that American blacks have substantially lower cancer survival rates than American whites with the same disease. By targeting segments of the population with the highest mortality, it is hoped that this interdivisional initiative will have a significant impact on minority population cancer treatment and survival. The MSS of the CMBP will contribute to NCI-supported clinical trials research groups to better enable the NCI's research to reach and support those minority populations which are particularly susceptible to cancer. It is not the purpose of the MSS to completely support an oncology program. Substantial local institutional support is a necessary prerequisite.

This program is described in the Catalog of Federal Domestic Assistance No. 13.397, Cancer Centers Support. 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.

III. PROJECT EVALUATION

The Divisional Program Director and the CMBP Director of the NCI will determine the appropriateness of the supplement request based on the applicant institution's ability to: (1) access adequate numbers of minority patients; (2) enter eligible patients on protocol; (3) deliver therapy; and (4) follow-up and report these patients. The proposed research described in the supplemental application must fit within the scope of the approved and funded parent project grant. Supplemental applications will be reviewed by the National Cancer Advisory Board for a final recommendation.

IV. ELIGIBILITY

Domestic institutions capable of accessing large numbers of minority patients on a regular basis, entering eligible patients on protocols, delivering therapy and following up patients may apply. These patients, largely Black, Hispanic, Native American and Oriental, have breast, prostate, cervical, lung, colon, head and neck cancers as predominant pathologies. As many of the patients would benefit from new methods of cancer treatment, the satellite institution would become an affiliate of an NCI-supported clinical trials program.

V. FUNDING

Funding will be made in accordance with the usual NIH policy for supplements. Awards will be issued on an annual basis for the duration of the project period of the parent award. Continuing support for each subsequent year of the project period will depend upon approval of a satisfactory annual progress report and proposed budget. Funding for the supplemental awards under this program is for the sole purpose of facilitating participation by institutions as described above. Institutions and hospitals funded by an MSS are not eligible for continued support under this mechanism beyond the project period of the parent grant.

VI. HOW TO APPLY

The named principal investigator on the active grant of a parent institution should submit an administrative supplemental application on the standard form PHS 398, limited to the following: (1) face page, in block 2, the application must designate the grant number of the active award and specifically state **"Minority Satellite Supplement;"** (2) budget page; (3) biographical sketch of the institutional satellite staff; and (4) the way in which current activities involving ongoing treatment protocols will be affected by accession of additional patients from the community at risk. Letters of support must be included by both the parent and satellite institutions from the Heads of the Department of Medicine or Deans, and Cooperative Group Chairmen where applicable.

The original and four copies of the application must be sent to:

Division of Research Grants
National Institutes of Health
Westwood Building - Room 240
Bethesda, Maryland 20205

Please send two copies to:

Dr. Lemuel Evans, Director
Comprehensive Minority Biomedical Program
Division of Extramural Activities
National Cancer Institute
National Institutes of Health
Building 31 - Room 10A04
Bethesda, Maryland 20205

ANNOUNCEMENT

RESEARCH GRANTS ON USE OF NEW TECHNIQUES TO STUDY METABOLIC PROCESSES AND DISEASES

P.T. 34; K.W. 0765020, 0715135, 1002008, 0790005, 0760030, 0760080, 1002028, 1014001

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

Application Receipt Dates: July 1, November 1, March 1

I. INTRODUCTION

The Metabolic Diseases Research Program (Division of Diabetes, Endocrinology and Metabolic Diseases), supports basic research relevant to understanding the molecular and cellular mechanisms of inherited and acquired metabolic diseases. In accordance with recommendations from a recent Advisory Panel meeting, the Program encourages submission of research project grant applications (R01s and/or P01s), which propose to utilize new techniques in studies of enzymes and membranes, and their role in normal and abnormal metabolic processes.

II. RESEARCH GOALS

The goal of this research program is to encourage use of new tools to study basic mechanisms by which enzymes and membranes modulate or regulate chemical transformations and metabolic processes relevant to diseases of metabolism. The proposed studies should utilize one or more of the following techniques: recombinant DNA and/or gene transfer, hybridomas for antibody production, site-directed mutagenesis, patch-clamp single-channel recording, crystallization of intact membrane proteins, crystal data collection for x-ray analysis with two-dimensional electronic area detectors, or other novel and emerging techniques.

Recently developed technologies have the potential to bring about breakthroughs in understanding enzyme, protein and membrane structure-function as they relate to diseases of metabolism. For example, utilization of recombinant DNA techniques allows the analysis of regulation of expression of key enzymes and membrane receptor/transport proteins, and the expression of normal and mutant enzymes or membrane proteins in heterologous hosts for production of significant quantities of proteins. Production of specific and monoclonal antibodies by hybridoma technologies allows the isolation and purification of cellular and membrane proteins, and development of quantitation methods with diagnostic potential. Site-

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This program is described in the Catalog of Federal Domestic Assistance, No. 13.847, Diabetes,Endocrinology, and Metabolic Diseases. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301, (Public Law 78-410, as amended; 42 USC 241) and administered under PHS grant policies and Federal Regulations, most specifically at 42 CFR Part 52 and CFR Part 74. This program is not subject to the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review.

directed mutagenesis allows the study of receptor and membrane transport systems, the genetic engineering of metabolic pathways "to order" in isolated cells or whole animals, or the design and production of new cellular or membrane proteins with altered receptor or transport properties. Patch-clamp single-channel recording allows characterization of ionic channels. Crystallization of membrane proteins makes possible high resolution structural analysis heretofore only possible for soluble proteins. Utilization of new two-dimensional electronic area detectors allows data collection for x-ray crystal diffraction studies in much shortened time frames.

Novel and important techniques, capable of contributing toward progress in the understanding, diagnosis and treatment of diseases of metabolism are continuously emerging. The Metabolic Diseases Research Program seeks to stimulate the use of these new and emerging technologies to advance our knowledge of enzymes, other proteins, and membranes relevant to metabolic diseases.

III. MECHANISM OF SUPPORT

Support for this program will be through the traditional research grant-in-aid mechanism. Successful applicants will direct and carry out the individual research projects. Program project applications must conform to an NIADDK imposed ceiling for total budget of $1 million per year in direct costs when averaged over the requested project period. Applicants intending to submit new program project applications should consult with the NIADDK staff listed below and are strongly encouraged to submit a letter of intent, well in advance of the anticipated submission date, to permit careful fiscal and programmatic review.

IV. APPLICATION AND REVIEW PROCEDURES

Applications should be prepared on Form PHS 3983 according to instructions contained in the application kit. Application kits are available from most institutional business offices or may be obtained from the Division of Research Grants (DRG), NIH. Check "Yes" in item two on the face sheet of the application and type "Grants to Study Enzymes and Membranes in Metabolic Diseases" in the space provided.

V. Applications must be responsive to the program announcement and the Abstract of the Research Plan should contain a clear statement relating the proposed research to inherited or acquired metabolic diseases of interest to NIADDK. Applications will be judged on scientific merit and program relevance in accordance with NIH policy and procedures involving peer review. Research grants (R01s) will be reviewed initially by an appropriate study section of the DRG. Program project grants (P01s) will be reviewed initially by an appropriate ad-hoc review group of the NIADDK. A second level of review for all applications will be performed by the National Arthritis, Diabetes, and Digestive and Kidney Diseases Advisory Council.

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

Application Receipt Office
Division of Research Grants
National Institutes of Health
Westwood Building - Room 240
Bethesda, Maryland 20205

A brief covering letter should accompany the application indicating that it is being submitted in response to this program announcement. A copy of this covering letter should be sent, under separate cover, to the Metabolic Diseases Reseach Program staff. For further information on areas of programmatic interest, investigators are encouraged to contact the following program staff:

Dr. Robert Katz
Director
Metabolic Diseases
Research Program, NIADDK
Westwood Building - Room 607
National Institutes of Health
Bethesda, Maryland 20205

Telephone: (301) 496-7997

or

Dr. Nancy Lamontagne
Assistant Director
Metabolic Diseases
Research Program, NIADDK
Westwood Building - Room 607
National Institutes of Health
Bethesda, Maryland 20205

Telephone: (301) 496-4980

ANNOUNCEMENT

MINORITY INSTITUTIONAL RESEARCH TRAINING GRANT

P.T. 44, FF; K.W. 0720005, 0715040, 0715165, 0785070

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Application Receipt Date: August 15, 1985

The National Heart, Lung, and Blood Institute (NHLBI) announces a program to train graduate students in minority schools for research careers in areas related to cardiovascular, pulmonary or hematologic diseases. The support mechanism will be the NIH institutional research training grant. Copies of the program guidelines are currently available from staff of the NHLBI, listed below.

Grants in this program will be made to minority institutions, each of which will cooperate with a research center that has a well-estabished cardiovascular, pulmonary, or hematologic research and research training program. Each trainee will be placed with a mentor who is an accomplished investigator at the cooperating research center and who will assist the advisor at the minority institution in the trainee's development and research plan.

Guidelines for this program may be obtained from any of the following:

George A. Hayden, Ph.D.
Division of Heart and Vascular Diseases
National Heart, Lung, and Blood Institute
Federal Building - Room 3A10
7550 Wisconsin Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-1724

Joan M. Wolle, Ph.D.
Division of Lung Diseases
National Heart, Lung, and Blood Institute
Westwood Building - Room 6A12
5333 Westbard Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-7668

This program is described in the Catalog of Federal Domestic Assistance Nos. 13.837, 13.838 and 13.839. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 8-410, as amended; 42 USC 241) and administered under PHS grant policies and Federal Regulations at 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.

Luis Barbosa, D.V.M.
Division of Blood Diseases and Resources
National Heart, Lung, and Blood Institute
Federal Building - Room 5C06
7550 Wisconsin Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-1537

ANNOUNCEMENT

MINORITY SCHOOL FACULTY DEVELOPMENT AWARD

P.T. 14, FF; K.W. 0715040, 0715165, 0750010, 0785070

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Application Receipt Date: August 15, 1985

The National Heart, Lung, and Blood Institute (NHLBI) announces a program to encourage the development of faculty investigators at minority schools in areas relevant to cardiovascular, pulmonary, blood diseases, and blood resources. Copies of the program guidelines are currently available from the staff of the NHLBI, listed below.

Grants in this program will be made to minority institutions on behalf of awardees, each of which will work with a mentor at a nearby (within 100 miles) research center, who is recognized as an accomplished investigator in the research area proposed and who will provide guidance for the awardee's development and research plan.

Guidelines for this program may be obtained from any of the following:

George A. Hayden, Ph.D.
Division of Heart and Vascular Diseases
National Heart, Lung, and Blood Institute
Federal Building - Room 3A10
7550 Wisconsin Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-1724

Joan Wolle, Ph.D.
Division of Lung Disease
National Heart, Lung, and Blood Institute
Westwood Building - Room 6A12
5333 Westbard Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-7668

This program is described in the Catalog of Federal Domestic Assistance Nos.13.837, 13.838, and 13.839. 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 Regulatins 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.

Luiz Barbosa, D.V.M.
Division of Blood Diseases and Resources
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