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The NIH Guide announces scientific
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requirements, and changes in extra-
mural programs administered by the
National Institutes of Health.

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NOTICES

NOTICE OF MEETING: THE SYSTEM FOR THE ELECTRONIC TRANSMITTAL OF FINANCIAL STATUS REPORTS

P.T. 42; K.W. 1014006

National Institutes of Health

The National Institutes of Health is sponsoring a two-day workshop, August 22-23, 1991, to be held in Bethesda, Maryland, on "The System for the Electronic Transmittal of Financial Status Reports". The workshop will include a hands-on computer demonstration as well as discussions on indirect costs and The Federal Cash Transactions Report (PMS-272).

There is no fee for this workshop. However, the number of participants has been limited to 75. Participants will be accepted on a first-come, first-served basis. To request a registration form or for more information, please contact Priscilla Irick or Arlene Griesmer on (301) 496-5287 between the hours of 8:00 a.m. and 3:30 p.m. Registration forms must be received in this office no later than July 31, 1991.

NOTICES OF AVAILABILITY (RFPs AND RFAs)

DIGESTIVE DISEASES CORE CENTERS

RFA AVAILABLE: DK-91-14

P.T. 04; K.W. 0715085, 0710030, 0785035

National Institute of Diabetes and Digestive and Kidney Diseases

Application Receipt date: October 16, 1991

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) invites applications for Digestive Diseases Core Center grants. NIDDK anticipates the award of one competitive Digestive Diseases Core Center grant in Fiscal Year 1992.

The objective of the Core Center is to bring together, on a cooperative basis, clinical and basic science investigators in a manner that will enhance and extend the effectiveness of research being conducted in the field of digestive diseases. The research activities of the Center must include projects that are relevant to the underlying causes(s), mechanism(s), diagnosis, early detection, prevention, control, and treatment of digestive diseases and related physiological, pathophysiological, congenital, or metabolic disorders resulting from such diseases. The focus of the research program in the Center can be a disease such as pancreatitis, functional bowel diseases, chronic hepatitis; an organ such as liver, esophagus, large bowel; a process such as absorption, secretion, motility; or an appropriate combination thereof that may also include areas of relevant technology.

Institutions that have the necessary foundation of multidisciplinary digestive diseases-related research are encouraged to apply for a Digestive Diseases Core Center grant. Each applicant must show that at least 50 percent of the fiscal support for the ongoing research projects in the areas relevant to digestive diseases are from the NIDDK and that the remainder of the research projects to be included in the Center research base are relevant to the goals of the research Core Center. Foreign institutions are not eligible to apply.

The NIDDK expects to award one Digestive Diseases Core Center grant in Fiscal Year 1992 on a competitive basis. The receipt of one competitive continuation application is anticipated, and it will be in competition for an award together with other applications received in response to this announcement. The requested budget may not exceed \$700,000 direct costs per year. Any application exceeding this amount will be returned to the applicant.

INQUIRIES

For the complete Request for Applications, Core Center Grant Guidelines, and consultation, please contact:

Tommie Sue Tralka
Director, Digestive Diseases Centers Program
Division of Digestive Diseases and Nutrition
National Institute of Diabetes and Digestive and Kidney Diseases
Westwood Building, Room 3A15
Bethesda, MD 20892
Telephone: (301) 496-9717

Business Information

Nancy Dixon
Supervisory Grants Management Specialist
National Institute of Diabetes and Digestive and Kidney Diseases
Westwood Building, Room 639
Bethesda, MD 20892
Telephone: (301) 496-7467

This program is described in the Catalog of Federal Domestic Assistance No. 93,848, Digestive Diseases and Nutrition. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 and Section 431 (b) (Public Law 78-410, as amended: 42 USC 241 and 42 USC 285c-5) and administered under PHS grant policies and Federal Regulations 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.

ONGOING PROGRAM ANNOUNCEMENTS

SMALL GRANTS FOR THE DEVELOPMENT OF NONMAMMALIAN MODELS

PA: PA-91-68

P.T. 34; K.W. 0755020, 0780020, 1004005

National Center for Research Resources

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

PURPOSE

The Biological Models and Materials Research (BMMR) Program supports the development of nonmammalian models for biomedical research through the award of research and resource grants and contracts. To enhance this program, the BMMR Program announces the initiation of a small grant award program for support of pilot studies in this area. Models that are considered appropriate for the purposes of this announcement are: lower organisms such as poikilothermic vertebrates, invertebrates, and microorganisms; in vitro systems such as cell and tissue culture from nonmammalian sources and established mammalian cell lines; and nonbiological systems, such as mathematical and computer simulations.

DESCRIPTION OF THE AWARD

This is a one-year, nonrenewable award for a pilot project/feasibility study of an innovative idea aimed at developing the aforementioned nonmammalian models that would provide a basis for more extended research.

ELIGIBILITY

This program is open to both non-profit and for-profit institutions, and is designed to support new and established researchers for work in nonmammalian pilot/feasibility research projects in the biomedical research area.

APPLICATION AND REVIEW PROCEDURE

Applications must be submitted on form PHS 398 (rev. 10/88), available at most institutional business offices and from the Division of Research Grants (DRG), National Institutes of Health (NIH). Because the format for preparing the small grant application is different from that used for research grants, additional instructions are needed. These instructions are available from the Director, BMMR Program as indicated below.

Application receipt and review dates:

RECEIPT DATE	INITIAL REVIEW GROUP MEETINGS	NATIONAL ADVISORY RESEARCH RESOURCES COUNCIL MEETINGS
October 1	February/March	June
February 1	May/June	September
June 1	October/November	February

REVIEW CRITERIA AND PROCEDURES

Applications will be evaluated with respect to the following criteria:

- o Significance and scientific merit of the proposed project as it relates to nonmammalian model development;
- o Innovativeness and risk as a pilot project;
- o Probability that the study will provide a basis for more extended research;
- o Adequacy of the background training and experience of the investigators;
- o Adequacy of the facilities;
- o Appropriateness of the budget;
- o Appropriateness and adequacy of experimental methods, including data to be collected, procedures of data analysis, and potential problems that may be encountered in the study and how they will be addressed.

Applications will be received by the NIH, DRG. Applications may be subjected to a triage by a peer-review group to determine their scientific merit relative to the other applications received in response to this announcement. NIH will withdraw from competition those applications judged to be noncompetitive and notify the applicant and institutional business official. Those applications judged to be competitive will be further evaluated for scientific/technical merit by initial review groups that will be convened by the Office of Review, NCRR. The second level of review will be conducted by the appropriate national advisory council or board.

TERMS OF THE AWARD

The award will be for one year and will provide a maximum of \$35,000 (direct costs) for personnel, supplies, small equipment, and travel required for conduct of the project. In most cases, the award can be extended on request for an additional year without additional funds. The award may not be used to supplement projects currently supported by Federal or non-Federal funds or to provide interim support for projects under review by the Public Health Service. Support for student employees who are performing work on a dissertation is discouraged because of the short term of this award.

STAFF CONTACT

Louise E. Ramm, Ph.D.
Director, Biological Models and Materials Research Program
National Center for Research Resources
National Institutes of Health
5333 Westbard Avenue, Room 8A07
Bethesda, MD 20892
Telephone: (301) 402-0630

The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) also provides small grant support for research on nonmammalian models. For information about ADAMHA small grant program eligibility and characteristics, contact:

Niles Bernick, Ph.D.
Associate Director for Referral and Review
Office of Extramural Programs
Alcohol, Drug Abuse, and Mental Health Administration
5600 Fishers Lane, Room 13-103
Rockville, MD 20857
Telephone: (301) 443-5184

GRANTS MANAGEMENT CONTACT

Ms. Diana L. Jaeger
Supervisory Grants Management Specialist
Office of Grants and Contract Management
National Center for Research Resources
Westwood Building, Room 849
Bethesda, MD 20892
Telephone: (301) 496-9840

This program is described in the Catalog of Federal Domestic Assistance, No. 93.198, Biological Models and Materials Resources. 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 grants 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.

SUPPLEMENTARY INSTRUCTIONS: FOR THE BIOLOGICAL MODELS AND MATERIALS RESEARCH PROGRAM SMALL GRANTS PROGRAM

FORM PHS 398 (rev. 10/88)

Applications must be submitted on the standard PHS research grant application form (PHS 398, rev. 10/88), following the instructions supplied with those forms EXCEPT for the following:

1. Face page of application

Item 2: Response to specific Program Announcement: Yes. Write in: Small Grants for Development of Nonmammalian Models, PA-91-68.

Item 8: Not applicable; mark NA.

2. Application page 4: Detailed Budget for the 12-Month budget period. Funds should be limited to the following categories: personnel (including technicians), consultants, rental or service fees, supplies, travel, and small equipment items. The total direct costs request may not exceed \$35,000.

3. Application page 5: Budget Estimates for All Years. Not applicable; do not complete this section.

Justification: All requests must be strongly and SPECIFICALLY justified for the one-year project period.

4. Biographic sketch: Not to exceed one page per individual. Include this information for all professional personnel associated with this project as collaborators, consultants, and others. Include an appropriate letter from each collaborator or consultant confirming his/her role in the project.

5. Introduction: Not to exceed one-half page (including a brief statement on preliminary work, if any).

6. Research Plan: Specific aims, background and significance, and experimental design and methods; not to exceed four pages. These sections of the research plan are described in the PHS 398 grant application kit instructions, and must be followed while keeping within the four-page limitation. Citations in this section are limited to one additional page entitled: Literature Cited.

Application must be readily legible. In an effort to include as much information as possible within the page limitations, some applicants have compressed the spaces between letters and words and reduced the type size to such a degree that the application is not readily legible. Such applications will also be returned without review. Follow the type size instructions on page 12 of the PHS 398 form.

7. Appendix: Not applicable. Do not submit.

8. Submission of the completed application forms:

Mail or deliver the complete and signed typewritten original application and four copies, to the Division of Research Grants, as specified in the general instructions.

Two additional copies must be sent to:

Biological Models and Materials Research Program
(SMALL GRANTS)
National Center for Research Resources, NIH
5333 Westbard Avenue, Room 8A07
Bethesda, MD 20892

Applications not following the above instructions will be returned to the applicant.

If you have any questions, contact Dr. Ramm at the address above.

RESEARCH PROGRAM PROJECTS FOR THE STUDY OF HUMAN NEUROCHRONOBIOLOGY

PA: PA-91-69

P.T. 34; K.W. 1002030, 0705055

National Institute of Neurological Disorders and Stroke
National Institute on Aging
National Institute of Mental Health

The Division of Convulsive, Developmental, and Neuromuscular Disorders, National Institute of Neurological Disorders and Stroke (NINDS), the Neuroscience and Neurophysiology of Aging Program, National Institute on Aging (NIA), and the Behavioral Medicine Program, National Institute of Mental Health (NIMH), encourage the submission of research grant and program project grant applications for the basic and clinical study of neurochronobiology.

BACKGROUND

The central nervous system supports basic life regulatory functions and is largely responsible for the maintenance and regulation of circadian rhythms such as the sleep-wake cycle and the periodic secretion of neuropeptides and many hormones. These brain-controlled biological rhythms directly determine much human behavior. Although there are many "zeitgebers," the major one for control of central nervous system circadian rhythms appears to be the light-dark cycle.

A large body of knowledge concerning neurological circadian rhythms exists. There are, however, major gaps in present knowledge that modern research techniques could address. The precise molecular mechanism(s) by which the suprachiasmatic nucleus modulates circadian rhythms remains unknown. The neurobiological consequences of phasic secretion, in contrast to a constant level, of critical hormones, such as melatonin, somatostatin, or cortisol, are also unknown. Although there is evidence to indicate that the sensitivity of neuroreceptors to a variety of ligands is circadian, the relevance of this phenomenon to understanding fluctuating responses to neuroactive drugs or to developing optimum daily dosing schedules for chronic diseases has not been studied.

There is evidence that the developing fetus responds to circadian changes in secretion of maternal hormones and possibly also to the normal daily light-dark cycle. The normal maturation and myelination of the neural substrates for sleep-wake cycling in the developing brain is purported to underlie the dramatic electroencephalographic (EEG) changes so well documented in sleep and wakefulness in the pre- and post-term infant. Disturbances of this maturation or abnormal development in those brain areas responsible for sleep and breathing have been implicated in a number of clinical entities. However, little is known about these neural substrates, and what constitutes normal and abnormal maturation and/or development of them. There are obviously major changes in the zeitgebers at birth, e.g., the newborn nursery environment obscures circadian light-dark cycles in the first few days of life. For neonates in pediatric intensive care units, the loss of light-dark time cues persists even longer. The temporary or permanent effect of such changes in zeitgebers on the developing nervous system is unknown.

At the other end of the life span, there are age-related changes in circadian rhythmicity that may be associated with degenerative changes in the neural substrates of this cycling. Little is known about how these phenomena may be causally related to the sleep disturbances so prevalent in the elderly.

The demands of modern society require individuals to function when the endogenous circadian rhythms of the central nervous system are desynchronized with the light-dark cycle. Examples include rotating shift work, long distance jet airplane travel, and space travel. Other circumstances in which

normal light-dark periodicities are distorted occur in controlled artificial environments such as those aboard naval vessels and in hospital intensive care units.

There is abundant anecdotal evidence concerning the effect of changing light-dark cycles on physiological parameters. There is also some evidence that frequent uncompensated changes in circadian phase may alter cognitive function, mood, and behavior. However, systematic study of the effect of temporary or long-term changes in light-dark cycles and/or work-leisure cycles is lacking. Such studies could lead to the development of more rational strategies to facilitate resetting of the human biological clock either to a new phase or a new period. This information could be of significant economic and social value.

RESEARCH GOALS

The goal of this announcement is to stimulate research in both basic and clinical neuroscientific aspects of circadian rhythms. Examples of areas of potential research include, but are not limited to: Study of normal and pathological human neurochronobiological rhythms across the life span; environmental or pharmacological modification of phase and/or period of circadian rhythms; adaptation to changes in the work-sleep cycles (i.e., rotating shift work); circadian variations in the effect of drugs upon the nervous system; effects of non-diurnal variations in light level (i.e., controlled artificial environments such as intensive care units) on the nervous system; effects of maturation of the developing brain and changes in the aging brain on sleep-wake cycling and brain-controlled biological rhythms and vital functions. Multidisciplinary approaches are encouraged.

APPLICATION PROCEDURES AND FORMAT OF APPLICATIONS

Applicants must submit applications on form PHS 398 (rev. 10/88). This form is available in the office of sponsored research or business office of the applicant institution and from the Office of Grants Inquiries, Division of Research Grants, National Institutes of Health, Westwood Building, Room 449, Bethesda, MD 20892, telephone (301) 496-7441.

Program project applicants must use the application format as described in the NINDS pamphlet, "Application Guidelines: Program Project and Clinical Research Center Grants" (revised October 1989), which may be obtained from the NINDS individual listed below.

To identify the application as a response to this program announcement check "yes" on item 2 of page 1 of the application and enter the title "Research Program Projects for the Study of Human Neurochronobiology, PA-91-69."

SPECIAL INSTRUCTIONS TO APPLICANTS REGARDING IMPLEMENTATION OF NIH POLICIES CONCERNING INCLUSION OF WOMEN AND MINORITIES IN CLINICAL RESEARCH STUDY POPULATIONS

NIH policy is that applicants for NIH clinical research grants and cooperative agreements will be required to include minorities and women in study populations so that research findings can be of benefit to all persons at risk of the disease, disorder, or condition under study; special emphasis should be placed on the need for inclusion of minorities and women in studies of diseases, disorders, and conditions which disproportionately affect them. This policy is intended to apply to males and females of all ages. If women or minorities are excluded or inadequately represented in clinical research, particularly in proposed population-based studies, a clear and compelling rationale for non-conformance to the policy should be provided.

The composition of the proposed study population must be described in terms of gender and racial/ethnic group. In addition, gender and racial/ethnic issues should be addressed in developing a research design and sample size appropriate for the scientific objectives of the study. This information should be included in the form PHS 398 in Section 2, A-D of the Research Plan AND summarized in section 2, e, human subjects. Applicants are urged to assess carefully the feasibility of including the broadest possible representation of minority groups. However, NIH recognizes that it may not be feasible or appropriate in all research projects to include representation of the full array of United States racial/ethnic minority populations (i.e. American Indians or Alaskan Natives, Asian/Pacific Islanders, Blacks, Hispanics).

The rationale for studies on single minority population groups should be provided.

For the purposes of this policy, clinical research includes human biomedical and behavioral studies of etiology, epidemiology, prevention (and preventive strategies), diagnosis, or treatment of diseases, disorders or conditions, including but not limited to clinical trials.

The usual NIH policies concerning research on human subjects also apply. Basic research or clinical studies in which human tissues cannot be identified or linked to individuals are excluded. However, every effort should be made to include human tissues from women and racial/ethnic minorities when it is important to apply the results of the study broadly, and this should be addressed by applicants.

For foreign awards, the policy on inclusion of women applies fully; since the definition of minority differs in other countries, the applicant must discuss the relevance of research involving foreign population groups to the United States' populations, including minorities.

If required information is not contained within the application, the application will be returned.

Peer reviewers will address specifically whether the Research Plan in the application conforms to these policies. If the representation of women or minorities in a study design is inadequate to answer the scientific question(s) addressed AND the justification for the selected study population is inadequate, it will be considered a scientific weakness or deficiency in the study design and will be reflected in assigning the priority score to the application. All applications for clinical research submitted to NIH are required to address these policies. NIH funding components will not award grants or cooperative agreements that do not comply with these policies.

Assignment of applications to specific Institutes will be on the basis of existing referral guidelines. Applications will be judged on scientific merit and program relevance in accordance with NIH policy and procedures involving peer review. An initial review will be made by an appropriate review group. A second level of review will be conducted by the appropriate National Advisory Council.

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

The original and six copies of the application must be mailed or delivered to the following address:

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

For further information, applicants may contact:

Charlotte B. McCutchen, M.D.
NIH, NINDS, DCDND, EB
Federal Building, Room 114
7550 Wisconsin Avenue
Bethesda, MD 20892
Telephone: (301) 496-1917

If the focus is upon issues of neurochronobiology during late life and the aging nervous system, applicants should also contact:

Andrew A. Monjan, Ph.D., M.P.H.
NIH, NIA, NNA
Building 31, Room 5C35
9000 Rockville Pike
Bethesda, MD 20892
Telephone: (301) 496-9350

If the emphasis is upon the mental health aspects of neurochronobiology, applicants should contact:

Susan Blumenthal, M.D.
Chief, Behavioral Medicine Program
Division of Basic Brain and Behavioral Sciences
National Institute of Mental Health
5600 Fishers Lane, Room 11-C-06
Rockville, MD 20857
Telephone: (301) 443-4337

For fiscal and administrative matters, contact:

Angeline L. Wilson
Grants Management Specialist
National Institute of Neurological Diseases and Stroke
Federal Building, Room 1004
7550 Wisconsin Avenue
Bethesda, MD 20892
Telephone: (301) 496-9231

This program is described in the Catalog of Federal Domestic Assistance No 93.853, Clinical Basis Research, NINDS. Awards will be made under the authority of the Public Health Service Act, Title IV, Section 301 (Public Law 78-410, as amended; 42 USC 241) and administered under PHS grants policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to Health Systems Agency review or Executive Order 12372.

ETIOPATHOGENESIS AND TREATMENT OF PSORIASIS

PA: PA-91-70

P.T. 34; K.W. 0715185, 0755030, 0765033, 0745070

National Institute of Arthritis and Musculoskeletal and Skin Diseases

I. PURPOSE

The Skin Diseases Program of the National Institute of Arthritis and Musculoskeletal and Skin Diseases supports research on the structure, function, and diseases of the skin. This program announcement is to encourage submission of research grant applications in the area of etiopathogenesis and treatment of psoriasis.

II. BACKGROUND

Psoriasis is a common skin disease affecting several million Americans. It may be disfiguring and even disabling. Treatments exist and are reasonably satisfactory for mild cases; but an understanding of the underlying etiopathogenesis of the disease is lacking and, thus, treatments for the more severe forms of the disease are empiric, often less than completely satisfactory in terms of efficacy, and may have significant, even life-threatening, side effects.

Psoriasis is characterized by a hyperproliferation of epidermis. Much of the prior treatment and research have been directed at this aspect of the disease. However, the recognition that psoriasis responds to Cyclosporin A, an immune suppressive agent that does not affect proliferation to any significant degree, and that psoriasis may develop or become more severe with HIV infection and then may respond to treatment of the immune deficit caused by HIV infection, has resulted in new lines of research focusing on immune mechanisms in the development of psoriasis. In addition, advances in molecular biology and the development of new knowledge in relation to cytokines and other intermediary proteins that may tie together immunologic effects with hyperproliferative effects have prepared the way for new advances in understanding and treating psoriasis.

Psoriasis often runs in families. This genetic aspect has, in the past, not been studied to any great degree, but, with recent advances in molecular genetics and the development of techniques for linkage analysis, an approach to this aspect of the etiopathogenesis of psoriasis would seem appropriate. Toward this end, the National Psoriasis Foundation has announced the availability of a contract to support the development of a tissue bank for well-established, informative families to act as a source of material to aid in the molecular genetic investigations of psoriasis. This tissue bank will be available in July 1992. (For further information, contact Gail M. Zimmerman, Executive Director, National Psoriasis Foundation, 6443 S.W. Beaverton Highway, Suite 210, Portland, OR 97221, (503) 297-1545).

Much of the current state of knowledge in regard to psoriasis research was summarized at a psoriasis workshop held in September 1989 and published as a supplement to the Journal of Investigative Dermatology in November 1990. A psoriasis workshop emphasizing the molecular genetic aspects of the disease is planned for September 1991. It is expected that these workshops, in combination with the availability of the tissue bank, will encourage the preparation and submission of grant applications investigating the etiopathogenesis and treatment of psoriasis.

RESEARCH GOALS AND SCOPE

The goals of this program announcement is to stimulate research in various areas related to the etiopathogenesis and treatment of psoriasis. Some research objectives appropriate for inclusion in applications responding to this announcement are:

- o Studies of the molecular mechanisms involved in the hyperproliferative state of psoriasis.
- o Investigations of immune interactions with and control of the hyperproliferation of psoriasis.
- o Molecular genetic investigations of the hereditary basis of psoriasis.
- o Development of new therapeutic approaches to psoriasis based upon new information regarding etiopathogenesis and the characteristics of the disease state.

MECHANISMS OF SUPPORT

Funding mechanisms to support these investigations include research grants (R01), Clinical Investigator Awards (K08), First Independent Research and Transition (FIRST) Awards (R29), and Individual National Research Service Awards (F32).

SPECIAL INSTRUCTIONS FOR INCLUSION OF WOMEN AND MINORITIES IN CLINICAL RESEARCH STUDIES

NIH and ADAMHA policy is that applicants for NIH/ADAMHA clinical research grants and cooperative agreements will be required to include minorities and women in study populations so that research findings can be of benefit to all persons at risk of the disease, disorder or condition under study; special emphasis should be placed on the need for inclusion of minorities and women in studies of diseases, disorders and conditions which disproportionately affect them. This policy is intended to apply to males and females of all ages. If women or minorities are excluded or inadequately represented in clinical research, particularly in proposed population-based studies, a clear compelling rationale should be provided.

The composition of the proposed study population must be described in terms of gender and racial/ethnic group. In addition, gender and racial/ethnic issues should be addressed in developing a research design and sample size appropriate for the scientific objectives of the study. This information should be included in the form PHS 398 in Section 2, A-D of the Research Plan AND summarized in Section 2, E, Human Subjects. Applicants/offerors are urged to assess carefully the feasibility of including the broadest possible representation of minority groups. However, NIH recognizes that it may not be feasible or appropriate in all research projects to include representation of the full array of United States racial/ethnic minority populations (i.e., Native Americans (including American Indians or Alaskan Natives), Asian/Pacific Islanders, Blacks, Hispanics).

The rationale for studies on single minority population groups should be provided.

For the purpose of this policy, clinical research includes human biomedical and behavioral studies of etiology, epidemiology, prevention (and preventive strategies), diagnosis, or treatment of diseases, disorders or conditions, including but not limited to clinical trials.

The usual NIH policies concerning research on human subjects also apply. Basic research or clinical studies in which human tissues cannot be identified or linked to individuals are excluded. However, every effort should be made to include human tissues from women and racial/ethnic minorities when it is important to apply the results of the study broadly, and this should be addressed by applicants.

For foreign awards, the policy on inclusion of women applies fully; since the definition of minority differs in other countries, the applicant must discuss the relevance of research involving foreign population groups to the United States' populations, including minorities.

If the required information is not contained within the application, the application will be returned.

Peer reviewers will address specifically whether the research plan in the application conforms to these policies. If the representation of women or

minorities in a study design is inadequate to answer the scientific question(s) addressed AND the justification for the selected study population is inadequate, it will be considered a scientific weakness or deficiency in the study design and will be reflected in assigning the priority score to the application.

All applications for clinical research submitted to NIH are required to address these policies. NIH funding components will not award grants or cooperative agreements that do not comply with these policies.

APPLICATION AND REVIEW PROCEDURES

Applications in response to this announcement will be reviewed in accordance with the usual Public Health Service peer review procedures for research grants. Review criteria include: significance and originality of the research goals and approaches; feasibility of the research and adequacy of the experimental design; training, research competence, and dedication of the investigator(s); adequacy of available facilities; and provision for the humane care of animals. Decisions will be based on initial review group and National Advisory Council recommendations.

Applications must be submitted on form PHS 398 (rev. 10/88), or the appropriate fellowship application form (PHS 416-1), available in the business or grants office at most academic or research institutions and from the Division of Research Grants, National Institutes of Health, Westwood Building, Room 449, Bethesda, MD 20892, telephone (301) 496-7441. Applications will be accepted in accordance with the submission dates for new applications on a continuing basis:

The phrase, "ETIOPATHOGENESIS AND TREATMENT OF PSORIASISi, PA-91-70" must be typed on line 2 of the face page of the application. The original and six copies must be sent or delivered to:

Grant Application Receipt Office
Division of Research Grants
Westwood Building, Room 240
National Institutes of Health
Bethesda, MD 20892-4500**

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

Alan N. Moshell, M.D.
Skin Diseases Program Director
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Westwood Building, Room 405
Bethesda, MD 20892
Telephone: (301) 496-7326

For fiscal and administrative matters, contact:

Diane M. Watson
Grants Management Officer
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Westwood Building, Room 407-A
Bethesda, MD 20892
Telephone: (301) 496-7495

This program is described in the Catalog of Federal Domestic Assistance No. 93.846, Arthritis, Musculoskeletal and Skin Diseases Research. Awards will be made under authorization of the Public Health Service Act, Title III, Section 301 (c) (public Law 78-410, as amended; 42 USC 241) and administered under PHS grants 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.

**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:

5333 Westbard Avenue
Bethesda, Maryland 20816