

NIH GUIDE

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

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.

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NIH MANPOWER REPORT

(FORM NIH-1749, REV. 1-77)



The NIH is terminating the requirement for submission of the Manpower Report form (NIH-1749). The Manpower Report form has previously required of all research grantees and contractors information about the numbers and types of positions for which salary was provided from the grant or contract during each reporting period. During the next several months, the NIH will be examining alternative means for collecting the most pertinent aspects of the information previously provided on the Manpower Report. Should this result in proposed changes in the general reporting requirements associated with NIH extramural awards, there will be an announcement and invitation for appropriate comment. The termination of collection of information using the Manpower Report form is effective as follows:

Grantees - The Manpower Report form will not be required as of October 1, 1979. Effective immediately, it will not be necessary to include a completed NIH-1749 with the continuation application (Type 5).

Contractors - Effective immediately, this report is no longer required for contracts. During FY 1980, the Manpower Report clause will be deleted from affective contract instruments individually as the need for other contract modifications arises.

REQUEST FOR RESEARCH GRANT APPLICATIONS: RFA

NIH-NHLBI-DHVD-80G-A

STUDIES ON THE ROLE OF THE MICROCIRCULATION

IN HYPERTENSION

ANNOUNCEMENT

The Division of Heart and Vascular Diseases of the National Heart, Lung, and Blood Institute invites grant applications for support of research on the role of the microcirculation in hypertension. The scope of this announcement includes structure-function studies that will contribute to the elucidation of blood pressure regulatory mechanisms in a variety of microvasculatures including those of the key blood pressure control organs - brain, heart, and kidney. There are a number of hypertensive models that could conceivably be employed. Moreover, we also wish to encourage projects involving the development of microcirculation methodology that might be needed to more fully characterize the hypertensive microcirculation. Due to the multifaceted nature of the research, interdisciplinary collaborations may be necessary.

This type of request (the RFA) is utilized when the Division wishes to stimulate investigator interest in a particular research area that is important to the Institute's National Program. Thus, the RFA identifies the scope of the Division's interest but does not require that proposals conform to narrowly specified research protocols, requirements, or methodology. Support will be provided through the customary NIH grant-in-aid, but it differs from other research grants in its goal orientation. While it is expected that each of the successful applicants will plan, direct, and execute his/her own research program, that program and any substantial modifications must be mutually agreed upon by the participant and the National Heart, Lung, and Blood Institute.

The present RFA is for a single competition with a specified deadline of February 15, 1980, for receipt of applications. The review of all applications in response to this RFA will be arranged by the NIH Division of Research Grants. Applications should be prepared in accordance with the aims and requirements which are described in the following sections.

This RFA does not in any way interfere with the freedom of investigators to apply for regular research grants in the customary manner in this or in related fields of investigation; however, two identical applications cannot be under consideration at the same time. Funded applications will be administered by the Hypertension and Kidney Diseases Branch of the Division of Heart and Vascular Diseases.

The announcement's information is outlined as follows:

I. PROGRAM SPECIFICATIONS

- A. Background Information
- B. Goals and Scope
- C. Mechanism of Support

II. METHOD OF REVIEW AND CRITERIA FOR REVIEW

- A. Review Procedures
- B. Review Criteria

III. METHOD OF APPLYING

- A. Letter of Intent
- B. Application Format
- C. Application Procedure

If you have any questions related to this announcement, you should contact Mr. Armando Sandoval of the Hypertension and Kidney Diseases Branch, NHLBI, at (301) 496-1857.

I. PROGRAM SPECIFICATIONS

A. Background Information

The Hypertension Research Program of the Division of Heart and Vascular Diseases supports multifaceted approaches to the problem of hypertension. Through grants and contracts, it supports investigations on many research aspects of hypertension, e.g. behavioral, circulatory, endocrine, neural, renal, etc. The projects range from studies of blood pressure regulation to development of diagnostic and therapeutic measures.

The importance of the microcirculation to hypertension research derives from the physical resistance to blood flow which it poses, and the microcirculation's transport and exchange functions that are likely involved in blood pressure regulation mechanisms. Because of the microcirculation's importance and the fact that limited hypertension research is currently being carried out in this area, there is an essential need for increased research activity. The Hypertension Task Force expressed this need in four of their seven recommended areas for research emphasis.*

1. The influence of local modulators of resistance (e.g. the renin-angiotension system, the kallikrein-kinin system, and prostaglandins) on blood pressure.

*The Hypertension Task Force has written a "state of the art" report in the area of hypertension that will be available to the public in December 1979. Requests for a summary volume of the report should be made by postcard only, and mailed to:

Department RG
Public Inquiries and Reports Branch
National Heart, Lung, and Blood Institute
Bethesda, Maryland 20205

Please specify on the postcard that you are requesting Volume 2 of the Hypertension Task Force Report.

2. The role of the microcirculation and veins in the development and maintenance of hypertension. Research is necessary to assess the ability of vascular beds to autoregulate at various times during the development of hypertension. The investigations would ideally be coupled with measurements of tissue metabolism and nutrient transport. Particular attention should be given to the status of diffusion distances and tissue oxygen pressure. Such investigations are especially important in organs that hypertrophy, such as the heart, where organ failure has been related to inadequate tissue nutrition.
3. The mechanisms responsible for the changes in small arteries and arterioles that cause the increase in total peripheral resistance of chronic hypertension. Whether the increase is due primarily to a change in active contraction of vascular smooth muscle or a structural increase in vessel wall thickness is a major question.
4. The miniaturization of existing in vivo and in vitro techniques and the development and utilization of new approaches especially for the study of nerve-muscle relationships and the adrenergic neurotransmitter mechanisms in small arteries, arterioles, and venules.

With respect to the last area, our scientific advisors indicate that while there is currently available a significant array of microcirculation techniques that can potentially be used in hypertension studies, there remains a need for additional methodology development in this area. Accordingly, we request research grant applications not only in the mechanistic, structural-functional aspects, but also in methodology development insofar as it promotes the characterization of the hypertensive microcirculation.

The areas cited above are by no means exhaustive of research possibilities in the microcirculation, and proposals are not necessarily limited to these areas.

B. Goals and Scope

The goals of this RFA are:

- To stimulate research on mechanisms of the microcirculation in hypertensive and normotensive models.
- To encourage investigators with expertise in microcirculation and hypertension research to define mechanistic differences between hypertensive and normotensive microvasculatures and to develop applicable microcirculation methodology as needed.

Since relatively little is known about blood pressure regulation mechanisms in the microcirculation, the scope of this RFA is

flexible to accommodate a variety of proposals that would be potentially responsive, including methodology development as stated previously. A number of hypertensive models (including man) are suitable for these studies; all types of hypertension may be studied. The key blood pressure control organs - brain, heart, and kidney - should be primarily considered. However, studies limited to the vasculature of the heart are not appropriate for this RFA. A variety of disciplinary approaches are possible. Since this is a very complex area of research, interdisciplinary collaborations are encouraged.

Finally, three aspects are emphasized in this RFA:

- The inclusion of hypertension expertise in the personnel of the proposal is essential; if necessary, collaboration or consultation should be arranged. A written commitment from the cooperating investigator(s) to participate in the project should be submitted with the application.
- The research should be conducive to elucidation of blood pressure control mechanisms; therefore, quantitation should be pursued as much as possible.
- A proposal should reflect the research strengths of the investigator(s) rather than attempt to explore all conceivable parameters.

C. Mechanism of Support

The support mechanism for this program will be the grant-in-aid. It will differ from the usual research grants in its goal orientation. While it is expected that each successful applicant will plan, direct, and execute his/her own research program, the program and any substantial modifications in it must be mutually agreed upon by the participant and the National Heart, Lung, and Blood Institute.

Although the award of grants pursuant to this request is contingent upon the ultimate receipt of appropriated funds for this purpose, it is expected that up to a total of \$1,000,000 will be made available in FY 1980 for the first year of the program. A variety of approaches would represent valid responses to this announcement; accordingly, it is anticipated that there will be a range of costs among individual grants awarded. However, this request is not intended for the support of proposals that would ordinarily be considered Program Projects or Centers. Applicants are requested to furnish their own estimates of the time required (up to three years) to achieve the objectives of the proposed research project. The earliest starting date that can be requested is August 1, 1980. Near the end of the project period, renewal proposals for further investigations may be submitted for competitive review. Current policies and regulations which govern research grants of the NIH will prevail. The Catalog of Federal Domestic Assistance number is 13.882.

II. METHOD OF REVIEW AND CRITERIA FOR REVIEW

A. Review Procedures

Upon receipt, applications will be reviewed for their responsiveness to the specific objectives described in the announcement. If an application is judged unresponsive, the applicant will be contacted and given an opportunity to withdraw the application or to submit it for consideration in the traditional research grant program of the NIH.

The initial review of applications will be arranged by the NIH Division of Research Grants. Proposals in response to this solicitation will be reviewed on a nationwide basis in competition with each other. Initial review will be conducted by a group composed primarily of non-Federal scientific consultants; secondary review will be made by the National Heart, Lung, and Blood Advisory Council. Applicants will be informed of results of the competition as soon as possible after the May 1980 meeting of the Council.

B. Review Criteria

The major factors considered in evaluating each application are given below:

- The relevance and significance of the proposed approach to the goals described in this announcement.
- The scientific merit of the proposal: the questions proposed for study, the research design, the methodology, the analysis and interpretation of data.
- The research experience and competence of the applicants to carry out the proposed investigations, including expertise in the disciplines that the study may require.
- Adequacy of time (effort) to be devoted to the project by investigators and technical staff.
- Adequacy of collaborative arrangement(s), if applicable.
- Adequacy of existing and proposed facilities and resources.
- The costs in relation to the scope of the project.

III. METHOD OF APPLYING

A. Letter of Intent

Prospective applicants are asked to submit a one-page letter of intent which includes a brief synopsis of the proposed area(s) of research. This letter should be sent to:

Dr. Charles L. Turbyfill
Review Branch
Division of Extramural Affairs
National Heart, Lung, and
Blood Institute
National Institutes of Health
Room 553, Westwood Building
Bethesda, Maryland 20205

by January 2, 1980.

The Institute requests such letters only to provide an indication of the number and scope of applications to be received. A letter of intent is not binding, it will not enter into the review of any proposal subsequently submitted, and it is not a requirement for application.

B. Application Format

Applications should be submitted on form PHS 398, the application form for the traditional research grant. The conventional presentation in format and detail for regular research grant applications should be used, ensuring that the points identified under the Review Criteria are fulfilled. A statement from collaborators (if any) indicating their willingness to work and interact in the project should be included.

C. Application Procedure

The receipt date for applications is before 5:00 p.m., EST, on February 15, 1980. The original and twenty-four (24) copies of the application should be sent or delivered to:

Division of Research Grants
National Institutes of Health
Room 240, Westwood Building
5333 Westbard Avenue
Bethesda, Maryland 20205

Both the outside of the mailing package and the top of the application's face page should be labeled:

"IN RESPONSE TO RFA NIH-NHLBI-DHVD-80G-A"

An additional copy of the application should be sent directly to Dr. Charles L. Turbyfill whose address appears in III.A. above.

ALLERGIC DISEASES ACADEMIC AWARD,

NIAID



Since 1972, the NIAID has been supporting the Allergic Diseases Academic Award Program. The purpose of this announcement is to reiterate the Institute's continuing interest and support of the program as well as to point out new modifications that would broaden, to some degree, policies governing the award.

The Allergic Diseases Academic Award is intended to provide well-trained young medical scientists of demonstrated superior potential with an opportunity to develop the necessary qualifications for established academic positions in allergic diseases; at the same time it would provide an institution, with a demonstrated need, the academic leadership required to initiate or augment essential investigations relating to allergic diseases. Candidates should have a health professional degree in the clinical sciences (M.D., D.O.) and 5 to 10 years of postdoctoral experience in areas relevant to allergic diseases. In addition, broad training and demonstrated competence in research, teaching, and clinical care are necessary in order to satisfy the program requirements. The award will provide support for a period of up to five years and is not renewable but may be transferable. Restriction of one award per school of medicine, osteopathy, or equivalent no longer applies.

The awardee will be provided a salary appropriate for the level of his or her academic rank at the grantee institution, up to a maximum of \$30,000 annually from NIAID for the five-year period. Up to a total of \$5,000 annually will be provided for supplies, equipment, travel, etc., which are necessary for pursuit of the awardee's program.

Deadlines for receipt of applications by the Division of Research Grants, NIH, are as follows:

<u>Applications Received by</u>	<u>Presented to Council in</u>	<u>Earliest Requested Beginning Date</u>
February 1	September/October	December 1
June 1	January	April 1
October 1	May	July 1

For further details and in order to obtain an application kit, contact:

This program is described in the Catalog of Federal Domestic Assistance number 13.855. 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.

Dr. Robert A. Goldstein
Chief, Allergy and Clinical Immunology
Branch
Immunology, Allergic, and Immunologic
Diseases Program
National Institute of Allergy and
Infectious Diseases
National Institutes of Health
Room 755, Westwood Building
Bethesda, Maryland 20205

SPECIAL EMPHASIS RESEARCH CAREER AWARD:
DIABETES MELLITUS - CARDIOVASCULAR, METABOLIC,
AND ENDOCRINOLOGIC ASPECTS,
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE
AND
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM,
AND DIGESTIVE DISEASES

ANNOUNCEMENT

SPECIAL RECEIPT DATE FOR APPLICATIONS

A special one-time receipt date has been scheduled for applications for the SERCA: Diabetes Mellitus - Cardiovascular, Metabolic and Endocrinologic Aspects. This receipt date is February 15, 1980. Applications received on or before this date should specify a project start date of July 1, 1980. The next receipt date will be June 1, 1980, for a possible start date of July 1, 1981.

This award is intended to:

encourage qualified individuals in the early stages of their postgraduate medical and scientific careers to develop research interests and skills in the metabolic, endocrinologic, and cardiovascular aspects of diabetes mellitus;

provide support for individuals to pursue a program of research in various fundamental and clinical research disciplines related to diabetes mellitus and its sequelae, at one or more domestic institutions which offer superior opportunities in these areas; and

create a pool of highly qualified investigators with experience and skills in the cardiovascular, metabolic, and endocrinologic aspects of diabetes mellitus for future roles in related areas of research.

The Special Emphasis Research Career Award (SERCA) provides the opportunity for an individual with developing research interests to acquire experience and skill in the broad fundamental and clinical scientific disciplines essential for a multidisciplinary approach to the study of the metabolic, endocrinologic, and cardiovascular aspects of diabetes mellitus. In contrast to existing NIH awards which encourage the development of skills in a single discipline within a single laboratory, this award emphasizes in-depth experience in several fundamental and clinical scientific disciplines which are not necessarily dependent upon a single laboratory or institution.

Provisions of the Award

This nonrenewable award provides support for a five-year period of full time research and related activities. The latter may include research development activities as well as involvement in patient care to the extent that it will strengthen research skills. The SERCA grant made to the awardee's parent institution provides up to \$30,000 per year for full time salary support plus fringe benefits. A maximum of \$8,000 per year during the first three years and of up to \$20,000 per year during the last two years will be provided for necessary research costs including technical assistance, equipment, supplies, consultant costs, domestic travel, patient care costs, publication, and other costs.

While working closely with an advisor, the awardee is expected to develop capabilities in fundamental, applied, and/or clinical research in the cardiovascular, metabolic, and endocrinologic aspects of diabetes. This should include exposure to multiple disciplines, such as physiology, biochemistry, biophysics, pharmacology, nutrition, and/or epidemiology. Investigators are encouraged to pursue these activities in several laboratories, and if appropriate, at more than one institution. In addition, an applicant must propose a research project of his/her own design which focuses on the cardiovascular, endocrinologic, and metabolic aspects of diabetes and which is of such scope that, within three years evidence of independent investigative capability will be presented. At the completion of this five-year award, the individual should be in a position to compete in regular NIH research grant award programs.

Eligibility Requirements

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

For Additional Information

Prospective applicants are encouraged to review the SERCA guidelines (dated July 1, 1978) which detail eligibility requirements and application procedures. In addition, prior to preparing an application, individuals are strongly encouraged to discuss their potential eligibility as well as their areas of research interest with the Program Director listed below.

Requests for copies of the SERCA Guidelines as well as questions related to eligibility, etc., should be directed to:

Resources and Manpower Development Program Director
Diabetes, Endocrinology, and Metabolic Diseases
National Institute of Arthritis, Metabolism,
and Digestive Diseases
Room 626, Westwood Building
Bethesda, Maryland 20205

Telephone: (301) 496-7851

PROGRAM RESEARCH INTERESTS IN
IMMUNE MECHANISMS AND CUTANEOUS DISORDERS
(IMMUNODERMATOLOGY),

ANNOUNCEMENT

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

The National Institute of Allergy and Infectious Diseases is interested in expanding research activities of the Immunology, Allergic, and Immunologic Diseases Program concerned with immune mechanisms and hypersensitivity reactions in diseases of the skin. Investigations dealing with involvement of the skin as target tissue by immune humoral and cellular reactants and with cells of the integument serving as natural sources of specific antigens in immune processes are required to further our understanding of immunologic and allergic cutaneous diseases. The development of such studies will depend upon joint investigative endeavors in the disciplinary areas of allergy, dermatology, and immunology (immunobiology, immunochemistry, immunogenetics, and immunopharmacology).

The role of hypersensitivity and immune related inflammatory mechanisms in disorders of the skin as a product of both basic and clinical investigations has become increasingly evident. Additionally, the recognition of the common occurrence and socioeconomic impact of allergic skin diseases has provided the stimulus to further major efforts in relevant dermatology and allergy-immunology research at an increasing number of university sections and medical centers. Clinical immunologists are in a position to take advantage of the ready access of the skin for in vivo studies of both immune mechanisms in the production of local lesions and systemic immunopathologic processes with manifestations at cutaneous sites. The purpose of this announcement is to encourage the interaction of researchers in allergy, dermatology, and immunology in order to advance progress in the prevention, diagnosis, and treatment of immune-mediated skin diseases.

Some areas encompassed by the scope of this program include investigations designed to study allergic phenomena and immune mechanisms in the following conditions:

1. studies to differentiate allergic skin disorders arising as a result of IgE related mechanisms: cell-mediated immunity/delayed hypersensitivity, and inflammation emerging from activation of the complement cascade and the effects of chemical mediators;

This program is described in the Catalog of Federal Domestic Assistance number 13.855. 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.

2. atopic dermatitis: the definition of possible interacting etiologies that influence the development and course of allergic eczema as a multifactorial disorder;
3. urticaria and angioedema: investigations to detect and define the multiple allergenic, neurogenic, chemical, and micro-circulatory factors that result in heterogeneous disorders with identical presentation;
4. contact hypersensitivity: evaluation of the nature of normal skin cell components converted to antigenic determinants as a result of interaction with sensitizing agents;
5. infection: immune responses to both pathogenetic and saprophytic flora serving as microbial antigens in immune and hypersensitivity reactions.

METHOD AND CRITERIA FOR REVIEW

Assignment of Application Applications will be received by the NIH's Division of Research Grants, referred to an appropriate study section for scientific review, and assigned to the NIAID for possible funding, unless programmatic considerations indicate more appropriate assignment to an alternative awarding unit. These decisions will be governed by normal programmatic considerations as specified in the DRG Referral Guidelines.

Review Procedures Applications in response to this announcement will be reviewed on a nationwide basis in competition with each other, and in accord with the usual National Institutes of Health peer review procedures. They will first be reviewed for scientific and technical merit by a review group composed mostly of non-Federal scientific consultants (study section). Following study section review, the application will be evaluated for program relevance by the NIAID Advisory Council. The review criteria customarily employed by the National Institutes of Health for regular research grant applications will prevail.

Deadline Applications will be accepted in accordance with the usual receipt dates for new applications:

March 1

July 1

November 1

Method of Applying Applications should be submitted on form PHS 398 which is available in the business or grants and contracts office at most academic and research institutions. The phrase "PREPARED IN RESPONSE TO PROGRAM RESEARCH INTERESTS IN IMMUNE MECHANISMS AND CUTANEOUS DISORDERS (IMMUNODERMATOLOGY)" should be typed across the top of the first page of the application.

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

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

For further information investigators are encouraged to contact:

Robert A. Goldstein, M.D., Ph.D.
Chief, Allergy and Clinical
Immunology Branch
National Institute of Allergy and
Infectious Diseases
Room 755, Westwood Building
Bethesda, Maryland 20205

Telephone: (301) 496-7104

In order to alert the Skin Diseases Program of the NIAMDD to the submission of proposals with primary thrust directed to dermatology, you may wish to communicate with:

Laurence H. Miller, M.D.
Director, Skin Diseases Program
Extramural Programs
National Institute of Arthritis,
Metabolism, and Digestive Diseases
Room 405, Westwood Building
Bethesda, Maryland 20205

Telephone: (301) 496-7326

SOCIAL AND BEHAVIORAL RESEARCH ON AGING,

NATIONAL INSTITUTE ON AGING

ANNOUNCEMENT

I. BACKGROUND AND GOALS

The National Institute on Aging (NIA) invites grant applications in its expanding Social and Behavioral Research Program. This program is concerned with the social, cultural, economic, and psychological factors that affect both the process of growing old and the place of older people in society. Research already shows the power of these factors; it shows that aging and the status of the elderly are not inevitably fixed but are subject to social modification and change. But more research is required on how these factors operate. In order to enhance the quality of life for older people and to contain the personal and social costs of health care and dependency, more knowledge is needed to strengthen the scientific basis for professional practice and public policy.

Research awards will be made to outstanding investigators whose ongoing or future work relates directly to these scientific concerns.

The Social and Behavioral Research Program (SBRP) is one of the major extramural programs of the National Institute on Aging. This Institute was established by law in 1974 for the "conduct and support of biomedical, social, and behavioral research and training related to the aging process and the diseases and other special problems and needs of the aged." Under this mandate the SBRP views health and well-being not narrowly within the framework of biological aging alone, but as the outcome of intricately interacting biological, psychological, social, and environmental processes. This program is coordinated with related programs on aging within NIA (e.g., in Biological Research and Clinical Medicine) and in such other organizations as the National Institute of Mental Health, the National Institute of Child Health and Human Development, and the National Institute of Neurological and Communicative Disorders and Stroke.

The sections below define the major emphases of the program (II), illustrate its broad content (III), and describe the scientific criteria (IV) and the procedures for making application (V, VI, VII).

This program is described in the Catalog of Federal Domestic Assistance number 13.866. 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, and Section 472, 42 USC 2891-1, and administered under Federal Regulations 42 CFR Part 66.

II. PROGRAM EMPHASES

Within this program four major emphases are applicable to most, but not all, research proposals:

1. The dynamic (rather than static) character of aging as a process and of social and historical change which affects the age structure of society and the ways in which individuals age. Importance is therefore attached to studies utilizing a dynamic conceptual model, including longitudinal studies, comparisons of how different cohorts age, and studies of how society as a whole is changed by the aging of the population.
2. The interrelatedness of old age with earlier ages, as later life is interconnected with the full life course and older people are interdependent with other people of all ages.
3. The cultural variability of age and aging, both within single society and across societies, as this variability reveals the nature and extent of cultural influences on the aging process, the lives of older people, and the general significance of age in society.
4. The multiple facets of age and aging, as social and psychological aging processes are in continuing interplay with biological and physiological aging.

III. PROGRAM CONTENT

Three broad, overlapping categories suggest the boundaries within which research is relevant to the Social and Behavioral Research Program: (1) older people in the changing society; (2) psychological and social components of the aging process; and (3) older people and social institutions. The following outline indicates how these categories fit together into a comprehensive program. The scope of the program is illustrated by the topics listed, but is not limited to them. Research applications on a wide variety of related topics will be considered.

1. Older People in the Changing Society

This category refers to research on age as a structural feature of society, both in the population and the organization of social roles. It includes studies of the behavior, attitudes, and status of older people within the changing social and demographic structure of society as a whole. Such studies lead to understanding of the conditions influencing the health and well-being of the elderly. Relevant research is currently conducted in such disciplines as sociology, anthropology, social psychology, history, economics, political science, geography, demography, and epidemiology. This category includes research topics related to age in the population such as:

Age composition of the population (implications for family structure, education, income maintenance programs, etc.)
Patterns of migration, rural-urban residence
Morbidity, mortality, causes of death

It also includes research on such age-related societal structures as:

- Laws, expectations, and social norms
- Inequalities of income
- Differential opportunity for labor force participation, education
- Differential access to political opportunities (voting, office holding)
- Environmental design (e.g., housing, communities, transportation systems)
- Age-based conflict
- Age-integration vs. age-segregation
- Life-long education vs. age-based education

This category stresses the relation of such topics to changes in the society, for example to the effects of increasing age-grading, to reduced economic dependence of parents on adult children, to changes in mandatory retirement ages, and to rapid shifts in values that can result in estranging older cohorts from the dominant popular culture. This category converges with overarching research concerns of several Institutes, such as differential life expectancy and prevention of disease and disability.

2. Psychological and Social Components of the Aging Process

Research in this category focuses on the psychological and social aspects of aging as a process. It includes studies of constancy and change in social or psychological characteristics, behaviors, and environmental responses of individuals as they grow old. Studies in this category lead to understanding of the conditions under which psychological, social, economic, and physiological functioning is maintained into the middle and later years. Relevant research is currently conducted in such disciplines as psychology, sociology, economics, and anthropology. The category includes such components of the biopsychological and cognitive aging process as:

- Physiological bases of aging behavior (genetic, neurological, and endocrine processes)
- Perception and sensation (e.g., vision, audition, taste and smell, pain, touch, time perception)
- Psychomotor skills (e.g., muscular strength, reaction time, complex tasks, such as driving)
- Cognition and intelligence
- Memory, learning, attention
- Emotional arousal and motivation
- Creativity and wisdom

It also includes such components of the social psychological and social aging process as:

- Subjective views of the life course
- Personality traits and processes
- Social perception and emotion
- Attitudes, self-image, life satisfaction
- Socialization
- Sex role differences in aging
- Interpersonal relationships over the life course
- Role sequences and transitions (e.g., loss of spouse or children, retirement, multiple or successive careers, serial marriages)
- Social and cultural factors in health maintenance and functioning
- Economic implications of biological loss (e.g., memory loss).

This category stresses the social and psychological aging components in such overarching concerns of several Institutes as nutrition, neurological and endocrine aging, and the antecedents and consequences of health and health disorders generally (including social and psychological factors in the etiology of diabetes and senile dementia). For applications that may be sponsored by more than one Institute, see IV below.

3. Older People and Social Institutions

Linking the topics in categories 2 and 3, this category refers to research on relations of aging individuals to the several social institutions within which they grow old. It includes studies of the age structure of particular institutions, and of how institutions can shape older people's lives and can in turn be shaped by older people themselves. Systems for providing service to older people are included as examples of such institutions, although NIA emphasis is on scientific analysis of these systems generally rather than evaluation of specific services.

This category includes age-related research on such topics as:

- The family and kin networks
- Friendships and peer groups
- Economic institutions (e.g., firms, consumer organizations)
- Religious institutions
- Educational institutions
- Political institutions (including age-based political movements)
- Health institutions
- Welfare institutions
- Leisure institutions (e.g., recreational associations, retiree organizations)

V. CRITERIA FOR SELECTION

To enhance scientific integrity, while opening vistas for innovative research, three sets of criteria will be used in addition to the usual NIH criteria in assessing grant applications and should be kept in mind in preparing research applications:

1. Conceptual clarity - Research proposals must derive from clear and carefully specified concepts, assumptions, principles. Research objectives, whether to test hypotheses or to focus exploration of a topic, must be clearly formulated in light of the conceptual framework.
2. Substantive integration - Each proposal must be clearly located within the relevant background of already available empirical data and research findings, so that the growing body of scientific knowledge then becomes cumulative.
3. Appropriate research design - Research designs and analytical techniques must be appropriate to the scientific questions posed. They may include case studies, cross-cultural comparisons, laboratory studies, longitudinal and cohort analyses, secondary analyses of available data, as well as others. Research methods must be carefully specified. Special care must be taken to avoid procedures that have often yielded potentially fallacious results and to use procedures that facilitate examination of the aging processes and the effects of social and environmental change.

Applications compete on the basis of relative scientific merit with all grant applications before the NIA. They are formally reviewed by NIH peer review groups and by the NIA's National Advisory Council. The number of awards made will reflect relative merit and the availability of grant funds.

Some applications reflect overlapping interests of more than one Institute and, if recommended for support, may be assigned to one Institute for funding or may be jointly funded.

V. MECHANISMS OF SUPPORT

A variety of mechanisms are available for obtaining grant support under this program:

1. Research Project Grant (the traditional NIH research support mechanism).
2. Postdoctoral Fellowship (the Individual National Research Service Award).
3. Special Research Award (for applicants new to research on aging; ceiling \$30,000 per year for three years).
4. Senior Fellowship (one-year salary support to enable experienced scientists to re-focus research attention on aging).

5. Clinical Investigator Award (three years' support for clinically trained investigators; salary up to \$30,000, supplies up to \$10,000 annually).
6. Research Career Development Award (five years' salary support allowing full time for research).
7. Program Project Grant (for multidisciplinary research involving several projects with a common focus).
8. Special Initiative Award (enabling institutions to develop capacity for research on aging; at least two pilot projects must serve as focus for related activities).
9. Institutional Training Grant (the Institutional National Research Service Award, for predoctoral and postdoctoral training programs).

Details of these awards and special guidelines for preparing applications are included in the NIH Grant Application kits referred to below. For further information and instructions, contact NIA staff (VII. below).

VI. METHOD OF APPLYING

At least one month prior to formal submission of an application, send a letter of intent to the Social and Behavioral Research Program, NIA (see address below). Include name of principal investigator, institutional address, title of application, and abstract of proposed research. Indicate that the application is in response to this announcement.

Use the appropriate NIH research or research training grant application kits. If your institution does not have these, copies may be obtained by writing:

Office of Grants Inquiries
Division of Research Grants
National Institutes of Health
Bethesda, Maryland 20205

Telephone: (301) 496-7441

After you have completed the application, expedite its routing within NIH by:

- Printing and underlining NIA SOCIAL AND BEHAVIORAL RESEARCH PROGRAM on the upper margin of the face sheet.
- Checking the box on the application form indicating that your proposal is in response to this announcement.
- Enclosing a cover letter repeating that this application is in response to this announcement of the NIA SOCIAL AND BEHAVIORAL RESEARCH PROGRAM.

Forward application and cover letter to:

Division of Research Grants
National Institutes of Health
Room 240, Westwood Building
5333 Westward Avenue
Bethesda, Maryland 20205

Receipt dates for Research Project Grant, Special Research Award and Special Initiative Award applications are: March 1, July 1, and November 1; for all others mentioned under Mechanisms of Support (V. above): February 1, June 1, and October 1.

VII. INQUIRIES AND CORRESPONDENCE

Correspondence, including advice on further development of applications, should be directed to:

Social and Behavioral Research
National Institute on Aging
9000 Rockville Pike
Building 31, Room 5C-27
Bethesda, Maryland 20205

Telephone: (301) 496-3136

REQUEST FOR RESEARCH GRANT APPLICATIONS: RFA

ANNOUNCEMENT

NIH-NIAID-80-2

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

TITLE: *CHARACTERIZATION OF NON-MHC AND TISSUE-SPECIFIC ALLOANTIGENS*

Application receipt date, March 15, 1980.

BACKGROUND INFORMATION

The National Institute of Allergy and Infectious Diseases invites applications for research grants, to be awarded during FY 1981, on the genetic and structural characterization of minor (non-MHC) and tissue-specific alloantigens.

The Genetics and Transplantation Biology Branch, IAIDP, sponsors basic and clinical research on the immunologic factors that govern acceptance or rejection of solid organ and myeloid tissue transplants. It also conducts a multi-center prospective study of the natural history of renal allografts and serves as a national and international resource by providing through its Serum Bank standardized reagents for histocompatibility testing. This request is intended to stimulate research in a difficult and underserved area of potentially great significance to transplantation.

To date, determinations of histocompatibility have focused almost entirely on the products of the genes of the major histocompatibility complex (MHC) as antigens on lymphocytes. It has become clear, however, that matching of donors and recipients of grafts at the MHC loci has limited predictive power for the success of the transplantation. This may be due in some cases to disturbances of immunoregulation induced by the immunosuppressive regimen resulting in a form of autoimmunity or vigorous reaction to normally weak antigens, or, probably more frequently, to the presence of polymorphic antigens coded by loci other than the MHC or specific for the transplanted tissue.

RESEARCH GOALS AND SCOPE

The objective of this RFA is to encourage the submission of grant applications that have among their goals:

1. The demonstration of non-MHC or tissue-specific alloantigens.
2. The evaluation of the genetic polymorphism of these antigens.
3. The evaluation of the changes in expression of these antigens in the course of ontogenesis, and in tissue culture.

The applicable legislative authority under which support will be given is:

Catalog of Federal Domestic Assistance number 13.855, Immunology, Allergic and Immunologic Diseases Research. Also the Public Health Service Act of 1912, P.L. 78-410, as amended.

4. The chemical characterization of these antigens. This should include isolation from membranes, and determination of size, composition, and, ultimately, amino acid sequence.

The approaches to these questions may include:

1. The conventional investigation of graft rejection in the face of matching of donor and recipient at the known MCH loci.
2. The production of specific antibodies by planned allo- and auto-immunizations in animal models, or during the course of allograft rejection or autoimmune disease.
3. The investigation of in vitro reactivities of lymphocytes against lymphoid and other cells matched at the MCH loci.
4. The production of monoclonal antibodies, employing hybridoma methodologies, capable of selecting unique antigenic structures.

Such studies should involve preferably human subjects. It is recognized, however, that ethical, theoretical, and practical considerations may make it advisable to use animal models.

MECHANISM OF SUPPORT

The support of work proposed in response to this RFA will be through the research grant mechanism. Applicants are expected to devise and execute their own protocols. Support of a minimum of three projects at a total cost of about \$200,000 per year is expected, but is contingent on the appropriation of funds. The actual number of applications submitted in response to this RFA that will be funded will of course depend on their merit.

REVIEW PROCEDURES AND CRITERIA

A. Application Review

The Division of Research Grants, NIH, will arrange for initial review for scientific merit; final review will be by the NIAID Advisory Council.

B. Review Criteria

Applications responsive to this RFA must:

1. demonstrate high merit of research design, approaches, and methodology;
2. hold substantial promise of significantly advancing the state of the art and of developing information to deepen our understanding of cell surface antigens and histocompatibility;
3. have adequate facilities and resources;

4. have staff of sufficient qualifications and experience.

METHOD OF APPLYING

The standard research grant application form PHS 398 should be used. It may be obtained from:

Office of Grants Inquiries
Division of Research Grants
National Institutes of Health
Bethesda, Maryland 20205

For the purposes of identification, the words "NON-MHC AND TISSUE-SPECIFIC ALLOANTIGENS" should be typed on the face page of the application and a brief letter specifying that the application is in response to this RFA should be included. The application is to be forwarded to:

Division of Research Grants
National Institutes of Health
Room 240, Westwood Building
5333 Westbard Avenue
Bethesda, Maryland 20205

The deadline for receipt of applications is March 15, 1980.

Applications submitted after March 15, 1980, will be returned to the applicant.

INQUIRIES AND CORRESPONDENCE

Inquiries and correspondence should be directed to:

Henry Krakauer, M.D., Ph.D.
Chief, Genetics and Transplantation
Biology Branch, IAIDP, NIAID
Room 752, Westwood Building
5333 Westbard Avenue
Bethesda, Maryland 20205

Telephone: (301) 496-7551