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For Grants  
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Vol. 18, No. 6  
February 24, 1989

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## NOTICES

### IMPLEMENTATION OF NEW TERMS AND CONDITIONS OF THE SMALL GRANT PROGRAM

P.T. 34; K.W. 1014002, 1014006

Alcohol, Drug Abuse, and Mental Health Administration

The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) recently decided to adopt new terms and guidelines for the Small Grant Award. Notice of the revised program announcement is published elsewhere in this issue of the NIH Guide. This notice documents decisions made by ADAMHA regarding implementation of the new Small Grant terms and conditions.

1. Effective June 1, 1989, ADAMHA Small Grant applications will be accepted for up to two years of support, with allowable direct costs of up to \$50,000 per year. Applications requesting the current maximum of one year of support at \$25,000 direct costs will continue to be accepted and reviewed. Applications received before June 1 that request more than one year of support, or more than \$25,000 per year, will be held until June 1, 1989.
2. Applications submitted under the revised Small Grant announcement will first be reviewed in the fall of 1989, with the earliest possible start date in December 1989.
3. One year applications received before June 1 may be revised and resubmitted at the higher levels. One year Small Grants already funded may not be extended with another year of funding, nor may funding be increased beyond the current \$25,000 maximum direct costs.
4. Effective June 1, 1989, Small Grant applications must be submitted for the regular receipt dates for research grant applications: June 1, October 1, February 1. Revised Small Grant applications must be submitted on the regular receipt dates for revised applications: July 1, November 1, March 1. Applications received after these dates will be returned to the applicant.
5. Eligibility criteria and review criteria are generally the same for the revised Small Grant Award as for the previous version. The criteria have been altered somewhat to emphasize that under certain conditions more experienced investigators, as well as those who are less experienced, are eligible for the Small Grant Award.

### DATED ANNOUNCEMENTS (RFPs AND RFAs)

#### PHASE III TRIAL OF NICHD-DEVELOPED PERTUSSIS VACCINE

SOURCES SOUGHT SYNOPSIS: NICHD-IRP-Synopsis No. 1

P.T. 34, AA; K.W. 0755015, 0740075

National Institute of Child Health and Human Development

The National Institute of Child Health and Human Development (NICHD) is seeking sources capable of conducting a phase III clinical trial of the NICHD-developed pertussis vaccine (purified pertussis toxin inactivated with H2O2). The trial will require a minimum of 15,000 children who will be immunized at 2,4,6, and 18 months of age. The immunizations must be completed within 24 months. There will be a 24-month follow-up period after completion of the immunizations to determine if any of the children vaccinated develop pertussis. The vaccine will be supplied by the NICHD.

Sources who feel they are capable must submit the following:

1. Evidence that demonstrates that they would have access to the participants for seven days after immunization in order to monitor reactions.
2. Evidence that they are able to obtain blood samples from a random cohort for the measurement of antitoxin antibodies. It is planned that the actual measurements will be performed by NICHD. This evidence should be presented from other studies in which the respondent has participated.
3. Evidence that they are able to culture *B. pertussis*. This evidence should include data from a similar study or documentation which supports the respondent's ability to perform this culture.

4. Evidence which documents their ability to manage and complete a large-scale clinical trial of a similar nature in infants. This evidence should include a complete description of the trial including the role of the proposed investigators. The respondent should also provide any publications resulting from this trial.

5. Evidence that they have a system available which will enable them to monitor the infants who were vaccinated for pertussis from the time of first immunization until they reach the age of four.

6. Evidence that they have the ability to utilize a system for networking data collection. This system will be supplied by the NICHD.

This is not a Request for Proposals. Respondents should address only the six items listed above. Responses should be concise and brief. Unnecessarily lengthy responses may be considered a failure to respond to the issue and are discouraged. CV's of all proposed investigators should be provided plus a brief description of the organization. All responses must be received by the due date of March 20, 1989, and should be addressed to:

Harvey Shifrin, Contracting Officer  
Contracts Management Section, OGC  
National Institute of Child Health and Human Development  
Executive Plaza North, Room 515  
6130 Executive Boulevard  
Bethesda, Maryland 20892  
Telephone: (301) 496-4611

Please note that letters sent by a delivery service should be sent to same address except for Rockville, Maryland 20850.

COMBINED ENDPOINT MOUSE GERM CELL MUTAGENICITY ASSAY

RFP AVAILABLE: NIH-ES-89-11

P.T. 34; K.W. 0755010, 1002028

National Institute of Environmental Health Sciences

The purpose of this project is to develop an expanded electrophoretic assay for induced mutations in the germ cells of mice that includes mutational endpoints in addition to the biochemical endpoints currently assessed in established electrophoretic assays. Dr. U. Ehling and his co-workers have used a combined endpoint approach to germ cell mutagenicity; this work should be considered as a starting point for the proposed expanded electrophoretic system. There are three general objectives of this study: (1) to expand the mouse electrophoretic germinal mutation test to include additional genetic endpoints; (2) to demonstrate the utility of the expanded test system using a model germ cell mutagen to be specified by the Project Officer; and (3) to test two compounds of unknown germ cell mutagenicity using the expanded test system. This work shall be performed in accordance with the NTP Health and Safety Minimum Requirements for the Cellular and Genetic Toxicology Branch. The Government estimates that approximately 1.15 professional FTE's, 4.4 technical FTE's and 0.2 clerical FTE's will be required on an annual basis. One term form, level of effort type contract is contemplated and the estimated period of performance is 4 years. All responsible sources may submit a proposal which shall be considered by the Agency. Expected release date of the RFP is March 3, 1989, with proposals due April 17, 1989.

Requests should reference RFP NIH-ES-89-11 and should be forwarded to:

National Institute of Environmental Health Sciences  
Contracts and Procurement Management Branch, OM  
ATTN: Elizabeth B. Ford, Contract Specialist  
79 T.W. Alexander Drive, 4401 Building  
P.O. Box 12874  
Research Triangle Park, North Carolina 27709

LOW-DOSE ORAL CONTRACEPTIVES AND CARDIOVASCULAR DISEASE

RFP AVAILABLE: NICHD-CE-89-18

P.T. 34; K.W. 0750020, 0715040, 0411005

National Institute of Child Health and Human Development

The Contraceptive Evaluation Branch of the Center for Population Research, National Institute of Child Health and Human Development, is seeking organizations capable of conducting a population-based case-control study designed to determine the relative and attributable risks of myocardial infarction and stroke among current users of oral contraceptives. Of particular interest will be the determination of the risks associated with the current use of oral contraceptives containing less than 50ug estrogen. In addition, the study should assess the effect of progestogen potency and dose, smoking, age, and other risk factors for cardiovascular diseases on the relative and attributable risks determined above.

It is estimated that a single contract award will be made for a four-year performance period. This announcement is not a request for proposals (RFP). RFP-NICHD-CE-89-18 will be issued on or about March 1, 1989. Proposals will be due 90 days thereafter. Copies of the RFP may be obtained by sending a written request to the address listed below. Please enclose a self-addressed mailing label.

Paul J. Duska, Contracting Officer  
Contract Management Section, OGC  
National Institute of Child Health and Human Development  
Executive Plaza North, Room 610  
Bethesda, Maryland 20892

LEADERSHIP AND EXCELLENCE IN ALZHEIMER'S DISEASE (LEAD) AWARD

RFA AVAILABLE: 89-AG-03

P.T. 34; K.W. 0715180, 0710010, 0710030

National Institute on Aging

Application Receipt Date: June 12, 1989

I. BACKGROUND

The U.S. Congress, through section 445B of the Public Health Service (PHS) Act as amended (42 U.S.C. 285e-3), authorized the National Institute on Aging (NIA) to make one or more awards to senior researchers who have made distinguished achievements relating to Alzheimer's disease (AD) and related dementias.

II. PROGRAM OBJECTIVES AND SCOPE

The objectives of this program are to help strengthen the capabilities of established senior investigators who have distinguished records in biomedical research on AD by providing up to seven years of support to allow the recipients the time to devote to research and to the development of outstanding less established biomedical investigators who are interested in working on AD and related dementias.

The senior scientist is to be the focal point of this award. That individual is to provide leadership on research in AD and related dementias of aging.

Relevant activities are provision of encouragement and assistance to other faculty members so that they may integrate issues of aging and AD and other related dementias into their research and teaching, organization and conduct of research and development of courses on these issues, recruitment and development of junior investigators, and integration of AD related activities among and within the various units of his or her institution. This individual should have the active and continuing support of the principal executive officials of the institution, and the institution should be strongly committed to the objectives of this program. Prospective awardees must demonstrate a strong commitment to and history of research on AD and related dementias of the aged.

It is hoped that this award will stimulate the recipient institution(s) to develop substantial continued support such as endowed chair(s) for AD and related dementias of aging when this award is terminated.

In developing their proposals, applicants must include the following three components:

A. Salary support for the applicant. The primary intention of this component is to provide continued and stable salary support for the duration of the award thus permitting the awardee time to devote to the goals of this award while being relieved of other competing responsibilities.

B. Salary support for at least one but not more than three junior researchers who demonstrate exceptional promise to conduct research in the area of aging and AD and related dementias. The primary intention of this component is to provide continued and stable salary support for the duration of the award to outstanding and promising junior investigators who would have the opportunity to develop as researchers under the close tutelage of the senior awardee.

C. Research Support. The primary intention of this component is to support the research program(s) of the senior investigator in the following ways:

- o Expansion of the scope of currently funded research into new lines of inquiry through novel techniques or approaches and by the addition of personnel.
- o Support or expansion of the research of the junior investigator(s) for up to three years.
- o Support of innovative or opportunistic research on aging and AD and related dementias as pilot studies of no more than two years duration.

### III. MECHANISM OF SUPPORT

This RFA will use the National Institutes of Health grant-in-aid mechanism. Except as stated in this RFA, awards will be administered under PHS Grants Policy Statement, DHHS Publication No. (OASH) 82-50,000, revised January 1, 1987. No more than \$1,000,000 total cost per year for seven years will be committed to specifically fund each award made in response to this RFA. Up to five awards may be granted based upon availability of funds and the number of meritorious applications.

Applicants are encouraged to obtain the full RFA, supplemental information, and to discuss their plans with and direct any other inquiries to:

Associate Director  
Neuroscience and Neuropsychology of Aging Program  
National Institute on Aging  
National Institutes of Health  
Building 31, Room 5C35  
Bethesda, Maryland 20892  
Telephone: (301) 496-9350

### ONGOING PROGRAM ANNOUNCEMENTS

#### SPECIFIC CANCER CELL TARGETING USING MOLECULAR GENETIC TECHNOLOGY

P.T. 34; K.W. 0715035, 1002058, 0760045, 0760080, 1007009

National Cancer Institute

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

The Developmental Therapeutics Program (DTP) and the Biological Response Modifiers Program (BRMP), Division of Cancer Treatment (DCT) of the National Cancer Institute (NCI) invite grant applications from interested investigators for basic and applied molecular biological studies concerned with specific targeting of cancer cells. The goal is to develop and evaluate novel methods for killing tumor cells while sparing normal cells in vivo.

#### BACKGROUND

Specific targeting of cytotoxic agents to tumor cells and not to normal cell populations continues to be a major goal in the treatment of cancer. Although many cytotoxic agents are effective against rapidly dividing cells such as in leukemia, where a large percentage of the tumor cell population is undergoing proliferation, these same agents cause undesirable toxicity often associated with damage to normal rapidly proliferating cells such as those in the bone marrow and the gastrointestinal tract. Approaches have been taken to achieve

specificity of cancer treatment by exploiting unique features of the tumor type. Immunotoxin (a specific antibody covalently coupled to a toxin) therapy has the theoretical capability of restricting cell killing to a defined antigen-bearing cell population, but several problems have been identified which may limit the use of this technique. These problems include the rapid emergence of non-antigenic variants within a tumor, the shedding of antigens from the tumor surface, and the development of a human anti-immunoglobulin response. Recent advances in molecular genetic technology now allow the consideration of NEW approaches to cancer treatment which circumvent these problems. One example is the use of tissue specific promoters and enhancers to regulate selectively the expression of inserted genes coding for cytotoxic molecules, such as the A subunit of diphtheria toxin. Another strategy is the use of gene splicing to produce hybrid molecules consisting of segments of toxins and cell surface receptor ligands or the variable region of immunoglobulins. These agents target cells at the level of the plasma membrane. The success of these approaches for the specific killing of tumor cells depend upon the identification of either unique regulatory regions for a specific tumor gene or tumor specific surface receptor ligands.

#### RESEARCH GOALS AND SCOPE

Recent experiments have shown that specific cell targeting using gene transfer or genetically engineered molecules can result in selective toxicity in vitro. However, successful use of these techniques for the treatment of cancer patients will depend upon the efficient delivery of the genes or toxic molecules to the tumor in vivo, the expression of the genes within the cells of the tumor, and the limitation of gene expression or ligand binding in non-target tissues. This Program Announcement encourages novel approaches to specific cancer cell targeting using recombinant DNA technology. Construction of appropriate molecules or genes which would specifically alter the function of tumor cells is encouraged. Proposed studies could include the isolation of cell-specific genes with unique promoter and enhancer regions, the design of multifunctional proteins with specific cell surface receptor ligands, or the development of theoretical models which predict functionality of the molecules. These molecules or genes should then be tested for efficacy in vivo in appropriate tumor-bearing animal models addressing questions of delivery and specificity. The overall aim of this initiative is the stimulation of new therapeutic approaches to cancer using molecular genetic technology which can be tested in a relevant experimental animal model. Although outside the scope of this Program Announcement, resources are available within the BRMP and DTP to facilitate further development of interesting and efficacious therapeutic agents. Resources include scale-up production, pharmacokinetic assessment, toxicology studies and clinical evaluation of the agent.

#### MECHANISM OF SUPPORT

This program will be supported through traditional research grants (R01). Awards may be made to public, private non-profit, and for-profit organizations. All PHS and NIH grant policies will apply to applications received in response to this announcement.

#### REVIEW PROCEDURES AND CRITERIA

Grant applications in response to this announcement will be reviewed in accordance with the usual National Institutes of Health peer review (Study Section) procedures. They will first be reviewed for scientific and technical merit by a review group composed primarily of non-Federal scientific consultants. Following the initial review, the applications will be evaluated by the appropriate advisory Board or Council. Review criteria include:

- o the significance and originality of the research from a scientific and technical viewpoint.
- o feasibility of research and adequacy of experimental design.
- o adequacy of time which the investigator(s) and staff would devote to the proposed studies.
- o the experience, training and research competence of the investigators.
- o adequacy of available facilities.
- o provision for the adequate protection of human subjects and the humane treatment of animals.



The Study Section will review the requested budget and recommend an appropriate budget for each approved application.

#### METHOD OF APPLYING

Applications should be submitted on Form PHS-398, revised 9/86, available in the business or grants office at most academic or research institutions, or from the Division of Research Grants, National Institutes of Health. Applications will be accepted in accordance with the dates for receipt of new applications on an indefinite basis:

February 1, June 1, October 1

The phrase "Specific Cancer Cell Targeting Using Molecular Genetic Technology" should be typed on line 2 of the face page of the application. The original and six copies should be sent or delivered to:

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

In order to alert the DTP and BRMP to the submission of applications with primary thrust directed to cancer treatment research, a copy of the face page and abstract - key personnel page of the application should be sent under separate cover to:

Dr. George S. Johnson  
Grants and Contracts Operations Branch  
Developmental Therapeutics Program  
Division of Cancer Treatment  
National Cancer Institute  
Executive Plaza North, Suite 832  
Bethesda, Maryland 20892  
Telephone: (301) 496-8783

\*This program is described in the Catalog of Federal Domestic Assistance No. 13.395, Cancer Treatment Research. Awards are under authorization of the Public Health Service Act, Section 301(c) and Section 402 (Public Law 78-410, as amended; 42 USC 421; 42 USC 282) 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.

#### REGULATION OF PROSTATIC INVOLUTION AS RELATED TO PROSTATIC CANCER

P.T. 34; K.W. 0715035, 1002004, 1002008, 0785050, 1003018, 0710070

National Cancer Institute

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

The Tumor Biology Program of the Division of Cancer Biology and Diagnosis, National Cancer Institute, seeks applications to study the relationship between prostate involution and prostatic cancer. The major objectives are to understand the nature of both the morphological and functional heterogeneity of the ductal-acinar network in the intact prostate, to study the regulation of gene expression during prostatic involution, to study the activities and functions of specific gene products in the prostate following androgen deprivation and the nature of their substrates, to study the biochemical properties and genetic regulation of cells in the prostate following involution, and to develop appropriate tumor models that mimic stages of the involution process and which will allow direct comparison between malignant and normal cells.

#### BACKGROUND

Standard treatments to block cell proliferation in fast growing tumors cannot be utilized effectively in prostate cancer because of the slow growth of these tumors. In addition, prostate cancer is usually androgen sensitive but not androgen dependent, rendering treatment by androgen blockage only partially effective. Because of these limitations, new approaches must be explored in order to understand how to enhance cell death in these tumors. Since it is becoming increasingly obvious that treatment of prostatic carcinoma by androgen blockage, whether by castration or by more elaborate therapeutic combinations, is only partially successful at best, the elucidation of the



mechanism of prostatic involution could herald a second generation of therapies designed to enhance the rate and degree of involution and to ensure the continued suppression of growth. Many elements of the process already have been described in some detail. A concerted effort to unravel the remaining links in the processes which control involution in the prostate may lead to new ways of treating prostate cancer.

#### RESEARCH GOALS AND SCOPE

The cellular and functional heterogeneity of the prostate has recently emerged as a major feature of the prostate gland. A broad range of experimental approaches is needed if the relationship of this heterogeneity to the pathology of the gland, especially the pathology of prostatic cancer, is to be understood. Of particular interest to the Tumor Biology Program is how these variables relate to prostatic involution and androgen-dependent and androgen-independent responses. The role of cell-cell interactions, including stromal cells, and the extracellular matrix may be important to evaluate in order to fully understand the process of involution. In view of the poor overall success of anti-androgen therapy, it may be important to examine the fully regressed prostate to determine unique features of the gland which are responsible for its refractoriness to anti-androgens.

There are numerous possible approaches to these problems and the Tumor Biology Program encourages all novel research strategies with appropriate rationales which will help to reveal relationships between prostatic involution and prostatic cancer. Researchers using a number of techniques from a variety of disciplines are likely to contribute to these studies. The disciplines considered important, but not all inclusive, are structural morphology, cell biology, endocrinology, protein biochemistry, molecular biology and genetics, and immunology. Since it is unlikely that any one laboratory has all the requisite skills to investigate these complex biological phenomenon, multiinstitutional and interdisciplinary collaborations may greatly facilitate the conduct of this research.

#### MECHANISM OF SUPPORT

This program will be supported through traditional research grants. Awards will be administered under Public Health Service grants policy as stated in the PHS Grants Policy Statement, DHHS Publication No. 82-50,000, revised January 1, 1987."

#### ELIGIBILITY

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

#### APPLICATION AND REVIEW PROCEDURES

Grant applications in response to this announcement will be reviewed in accordance with the usual Public Health Service Peer Review (Study Section) procedures. Review criteria include the significance and originality of research goals and approaches; feasibility of research and adequacy of experimental design; adequacy of available facilities and appropriateness of the requested budget relative to the work proposed. Following Study Section review, further evaluation will be provided by an appropriate National Advisory Board/Council. Funding decisions will be based on the above evaluations and on the availability of funds.

Applications should be submitted on Form PHS-398, revised 9/86, available in the business or grants office at most academic or research institutions, or from the Division of Research Grants, National Institutes of Health. Applications will be accepted in accordance with the dates for receipt of new applications on an indefinite basis:

June 1 October 1 February 1

The phrase "IN RESPONSE TO PROGRAM ANNOUNCEMENT - PROSTATE INVOLUTION RELATED TO PROSTATIC CANCER" should be typed on line 2 of the face page of the application. The original and six copies should be sent to:

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

A copy of the face page and abstract of the application should be sent under separate cover to:

Dr. Colette S. Freeman  
Chief, Cancer Biology Branch  
Division of Cancer Biology and Diagnosis  
National Cancer Institute  
Executive Plaza South, Room 630  
6120 Executive Boulevard  
Rockville, Maryland 20892  
Telephone: (301) 496-7028

Additional information related to the background of this program announcement also can be obtained by all potential applicants by contacting Dr. Colette S. Freeman at the telephone number above.

This program is described in the Catalog of Federal Domestic Assistance No. 13.396, Cancer Prevention Research. Awards will be made under authorization of the Public Health Service Act, Title III, Section 301(c) and Section 402 (Public Law 78-410, as amended; 42 USC 241; 42 USC 282) 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.

#### ALZHEIMER'S DISEASE AND RELATED DISORDERS: ISSUES IN CAREGIVING

P.T. 34, FF, II; 0715180, 0710010, 0730000, 0404000, 0408006, 0413001

National Institute on Aging  
National Center for Nursing Research  
National Institute of Mental Health  
National Center for Health Services Research

#### I. BACKGROUND AND GOALS

Over two million Americans presently suffer from Alzheimer's Disease and related disorders. (The abbreviation AD will be used to refer to this set of related conditions.) Individual, familial and societal burdens of care are well documented. For example, total direct care costs are estimated in the area of \$38 to \$42 billion per year. Although this estimate attempts to cover costs of informal services provided by family and friends, these dollar figures represent only a small fraction of caregiving burdens. Moreover, the need for appropriate services and quality care will intensify as the numbers of the oldest old -- those 85 years and older, who are at the greatest risk for AD -- continue to grow rapidly.

Qualified researchers are invited to submit applications for research and research training grants which focus on the broad area of caregiving for patients with Alzheimer's Disease and related disorders. The importance and timeliness of this area of research are highlighted by the recent Congressional language and authorization of special funding for burdens of care research associated with Alzheimer's Disease and related disorders.

Each cooperating agency has given programmatic priority to research in this area. NIA has special interests in investigating the burdens of care for AD patients and their families as part of its general mandate for research on Alzheimer's Disease and the health and long-term care needs of older persons. This program announcement supplements, but does not replace, previous NIA announcements on related issues (e.g., Aging and Formal Health Care; Oldest Old). NCNR's support for basic and clinical research and research training in patient care relevant to nursing has included studies involving caregiving. Strategies that assist both the caregiver and the patient in managing illness in various settings have been described and are being tested. Family members who assume primary responsibility for the care and management of ill persons are of particular interest. NIMH's ongoing support program emphasizes research on: 1) the nature of caregiving stress; 2) family support; 3) treating excess disability; 4) the prevention or reduction of stress in caregivers; and 5) treatment and service delivery research. These research areas are delineated in a still active grant announcement on "Research on Family Stress and the Care of Alzheimer's Disease Victims" (MH-86-07 released April 1985). NCHSR's interest in AD pertains to its efforts to stimulate innovative and timely research on significant issues associated with the efficient and effective delivery of health services.

Research on burdens of care for Alzheimer's victims and their families builds on a strong base of social, behavioral and health research focused on a wide range of chronic illnesses and disabilities in old age. We know, for example,

that: the bulk of care is provided by family and friends; caregiving responsibilities typically fall on one family member, and this is usually a woman; objective caregiving needs are not always associated with subjective burdens; difficulties exist in locating and arranging available formal care services and linking informal and formal care services; interventions can be successful in teaching needed caregiving skills and in reducing caregiving burdens; and family members do not necessarily terminate caregiving activities when ill or disabled family members are institutionalized. The burdens of caregiving are recognized, but few studies have systematically documented the nature, extent and impact of caregiving, using large, representative populations.

A major goal of this research solicitation is to understand the nature of caregiving and how this is affected by the special features of Alzheimer's Disease and related disorders. Changes in the course of these diseases require modifications of patterns of caregiving and creative strategies to manage the physical needs of AD victims, as well as their difficult behaviors (such as hostility toward the person providing the care). Research is sought which increases our knowledge of the caregiving process, and the health risks incurred by informal caregivers. Especially needed are studies of planned interventions for reducing the burdens of care. This program announcement seeks small-scale innovative interventions that can make a difference in the daily life of caregivers.

## II. SPECIFIC OBJECTIVES

The purpose of this program announcement is to provide a broad framework for specifying the range of social, behavioral, economic and health issues related to caregiving, with specific emphasis on Alzheimer's Disease and related disorders.

To further existing research in this area, research applications for this initiative should clearly specify relevant characteristics such as: 1) the characteristics of the caregivers (e.g., their roles and responsibilities); 2) the characteristics of dependent population and their caregiving needs (e.g., their functional levels and the severity of their condition); 3) characteristics of caregiving services (e.g., informal or formal) and 4) characteristics of the caregiving environment (e.g., home or institutional care).

Particular emphasis is placed on research on special populations in which there has been a dearth of studies: the oldest old, racial and ethnic minorities, those with low income or little education, and those living in rural areas. Moreover, it is NIH and ADAMHA policy that, if women or minorities are not included in a given study, a clear rationale for this exclusion must be provided.

The following areas are illustrative of suitable topics for research. These areas may be combined in various ways; applications need not be limited to topics presented below as long as they fall within the general area of issues of caregiving.

### CAREGIVERS' PERCEPTIONS OF AND RESPONSES TO ILLNESS SYMPTOMS

- o Factors associated with help-seeking behaviors and treatment responses to AD symptoms (e.g., how the family recognizes AD and decides to seek care).
- o How social meanings attributed to AD affect others' care for and interaction with AD victims.
- o Intergenerational behaviors and attitudes about caring for family members.

### THE NATURE OF CAREGIVING

- o The identification of actual caregiving behaviors needed to respond effectively to changing physical and psychosocial needs of patients.
- o Factors predicting who will become caregivers and the specification of the impact of AD on different family members and social support networks, with particular concern for the special caregiving stresses and burdens of aged and frail caregivers.
- o The development of standardized measures for assessing caregiver functions and burdens of care.

## LINKAGES BETWEEN INFORMAL AND FORMAL HEALTH CARE

- o The nature of interactions between informal and formal health care (e.g., how do formal services complement or substitute for informal care).
- o Factors affecting caregivers' preferences for and use of formal health care (e.g., factors associated with caregivers' decisions to seek institutional care for the AD victim, including effects of public and private policies).

## DAILY-LIFE INTERVENTIONS FOR CAREGIVERS

- o The development and testing of social, behavioral, technological, environmental or nursing interventions and reimbursement policies that can reduce caregiver burden and stress.
- o Assessment of the effectiveness of particular combinations of formal care and social services for AD victims and their caregivers (e.g., the nature and the effectiveness of specialized AD units for increasing patient functioning and reducing care burdens).
- o The identification of strategies that caregivers are currently using to manage their own self-care while caring for family members.

## CURRENT AND PROJECTED CARE NEEDS

- o The cost of current care systems as they relate to patient and caregiver outcomes.
- o The development of demographic models to improve forecasts of the future magnitude of the disease and disability, the availability of support networks, and the need for long-term care.

## MECHANISMS OF SUPPORT

Applicants funded under this announcement will be supported through the Public Health Service grant award in accordance with PHS policies applicable to research-project grants. All research, career development and research training mechanisms are applicable.

## REVIEW CRITERIA

Applications will be assigned to the appropriate group for initial review in accordance with the usual PHS peer review procedures. The review criteria are the traditional considerations underlying scientific merit. Applications will be reviewed for scientific and technical merit by an initial review group; second-level review will be by the appropriate National Advisory Council. Second-level review of individual fellowship applications will be conducted by the appropriate Institute Executive Group.

## APPLICATION PROCEDURES

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

Applicants should use the regular research project and program project grant application form (PHS 398, revised 9/86), PHS416-1 (rev. 6/85) for Individual Fellowships and PHS 6246-1 (rev. 12/87) for Small Business Innovative Research Application, available at the applicant's institutional Application Control Office or from the Office of Grants Inquiries, Division of Research Grants, (DRG), NIH, (telephone 301-496-7441). In order to expedite the application form's routing within NIH for PHS 398, please (1) check the box on the application form's face sheet indicating that your proposal is in response to this announcement and print (next to the checked box) ISSUES IN CAREGIVING and (2) if desired, enclose a cover letter repeating that your application is in response to a particular announcement (e.g., this announcement or the earlier NIMH announcement indicating topics of interest to both NIMH and NIA). Applicants using Form PHS 416-1 (rev. 6/85) should check block #3 on the face page of the application and indicate that the application is in response to this announcement. Standard receipt dates for all mechanisms are in effect (e.g., deadlines for regular research grants are February 1, June 1, and October 1).

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

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

#### ASSIGNMENT AND INQUIRIES

Responsive applications will be assigned according to established Public Health Service referral guidelines. Dual assignments will be used in situations of mutual interest. Address requests for additional information, research prospectuses, and/or letters to:

Dr. Marcia G. Ory  
Behavioral and Social  
Research Program  
National Institute on Aging  
Attention: Burdens of Care  
Building 31C, Room 5C32  
Bethesda, Maryland 20892  
Telephone: (301) 496-3136

Dr. Moira Shannon  
Health Promotion Disease  
Prevention Branch  
National Center for Nursing  
Research  
Building 31, Room 5B13  
Bethesda, Maryland 20892  
Telephone: (301) 496-0523

Dr. Enid Light  
Mental Disorders of the  
Aging Branch  
National Institute of  
Mental Health  
Parklawn Bldg, Room 11C03  
5600 Fishers Lane  
Rockville, Maryland 20857  
Telephone: (301) 443-1185

Ms. Linda Siegenthaler  
National Center for Health  
Services Research  
Parklawn Building, Room 18A09  
5600 Fishers Lane  
Rockville, Maryland 20857  
Telephone: (301) 443-6990

This program is described in the Catalog of Federal Domestic Assistance No. 13.866, Aging Research; No. 13.361, Nursing Research; No. 13.242, Mental Health Research, and 13.226, Health Services Research. Awards will be made under the authority of the Public Health Service Act, Title III, Section 1 (Public Law 78-410, as amended; 42 USC 241) and administered under PHS grant policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to Health Systems Agency review.

#### SMALL GRANT PROGRAM

P.T. 34; K.W. 1014002, 1014006

Alcohol, Drug Abuse, and Mental Health Administration

The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) announces a revision of its Small Grant Program Announcement. Under the revised announcement, applicants may request up to \$50,000 per year for up to 2 years (direct costs).

The revised announcement also indicates changes in the review process for Small Grant applications. Beginning in the fall of 1989, Small Grant applications submitted to the National Institute of Mental Health (NIMH) will be reviewed for scientific merit by the NIMH Small Grant Review Committee, which will meet three times a year. Applications submitted to the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and to the National Institute on Drug Abuse (NIDA) will be reviewed by each Institute's own review committee, also three times yearly.

Small grant applications should be submitted six months in advance of the desired start date. Effective June 1, 1989, applications must be submitted for the regular receipt dates for research grant applications: June 1, October 1, February 1. Revised Small Grant applications must be submitted on the regular receipt dates for revised applications: July 1, November 1, March 1. Applications received after these dates will be returned to the applicant.

Eligibility criteria and other terms and conditions of the Small Grant award remain generally as before. Applications under the revised announcement may be submitted beginning June 1, for funding in fiscal year 1990. Additional information on implementation is contained in the Implementation Notice found elsewhere in this issue of the NIH Guide.

Potential applicants wishing further information should contact:

NIAAA

Helen Chao, Ph.D.  
Chief, Biomedical Research Branch  
Division of Basic Research  
Room 14C-20  
Telephone: (301) 443-4223

Barry Brown, Ph.D.  
Chief, Neuroscience and Behavioral Research Branch  
Division of Basic Research  
Room 14C-20  
Telephone: (301) 443-4223

John Allen, Ph.D.  
Chief, Treatment Branch  
Division of Clinical and Prevention Research  
Room 16C-05  
Telephone: (301) 443-0796

Jan Howard, Ph.D.  
Chief, Prevention Branch  
Division of Clinical and Prevention Research  
Room 16C-05  
Telephone: (301) 443-1677

Mary C. Dufour, M.D., M.P.H.  
Chief, Epidemiology Branch  
Division of Biometry and Epidemiology  
Room 14C-26  
Telephone: (301) 443-4897

NIDA

Stephen Szara, M.D.  
Chief, Biomedical Branch  
Division of Preclinical Research  
Room 10A-31  
Telephone: (301) 443-6300

Richard Hawks, Ph.D.  
Chief, Research Technology Branch  
Division of Preclinical Research  
Room 10A-13  
Telephone: (301) 443-5280

Roger Brown, Ph.D.  
Chief, Neuroscience Research Branch  
Division of Preclinical Research  
Room 10A-31  
Telephone: (301) 443-6300

John Boren, Ph.D.  
Chief, Behavioral Pharmacology Branch  
Division of Clinical Research  
Room 10A-16  
Telephone: (301) 443-1263

Carl Leukefeld, Ph.D.  
Acting Chief, Prevention Research Branch  
Division of Clinical Research  
Room 10A-38  
Telephone: (301) 443-6697

Jack Blaine, M.D.  
Chief, Treatment Research Branch  
Division of Clinical Research  
Room 10A-30  
Telephone: (301) 443-4060

Harry Haverkos, M.D.  
Chief, Clinical Medicine Branch  
Division of Clinical Research  
Room 10A-08  
Telephone: (301) 443-1801

Barry Brown, Ph.D.  
Chief, Community Research Branch  
Division of Clinical Research  
Room 10A-46  
Telephone: (301) 443-6720

NIMH

Ecford S. Voit, Jr., Ph.D.  
Acting Deputy Chief  
Antisocial and Violent Behavior Branch  
Division of Biometry and Applied Sciences  
Room 18-105  
Telephone: (301) 443-3728

Thomas L. Lalley  
Chief, Biometric and Clinical Applications Branch  
Division of Biometry and Applied Sciences  
Room 18C-14  
Telephone: (301) 443-4233

Freda Cheung, Ph.D.  
Chief, Minority Research Resources Branch  
Division of Biometry and Applied Sciences  
Room 18-101  
Telephone: (301) 443-3724

Joy Schulterbrandt  
Chief, Behavioral Sciences Research Branch  
Division of Basic Sciences  
Room 11C-10  
Telephone: (301) 443-3942

Leonard Mitnick, Ph.D.  
Chief, Health and Behavior Research Branch  
Division of Basic Sciences  
Room 11C-06  
Telephone: (301) 443-4337

Ronald Schoenfeld, Ph.D.  
Acting Chief, Neurosciences Research Branch  
Division of Basic Sciences  
Room 11-105  
Telephone: (301) 443-1504

R. M. A. Hirschfeld, M.D.  
Chief, Mood, Anxiety and Personality Disorders Research  
Branch  
Division of Clinical Research  
Room 10C-24  
Telephone: (301) 443-1636

Barry D. Lebowitz, Ph.D.  
Chief, Mental Disorders of the Aging Research Branch  
Division of Clinical Research  
Room 11C-03  
Telephone: (301) 443-1185

Jon Shaw, M.D.  
Chief, Mental Disorders of Children and Adolescents  
Research Branch  
Division of Clinical Research  
Room 10-105  
Telephone: (301) 443-3266

Ben Z. Locke  
Chief, Epidemiology and Psychopathology Research Branch  
Division of Clinical Research  
Room 10C-05  
Telephone: (301) 443-3774

Joyce B. Lazar  
Chief, Prevention Research Branch  
Division of Clinical Research  
Room 14C-02  
Telephone: (301) 443-4283

Sellman C. Schulz, M.D.  
Chief, Schizophrenia Research Branch  
Division of Clinical Research  
Room 10C-06  
Telephone: (301) 443-3524

The address for all of the above is: Parklawn Building,  
5600 Fishers Lane, Rockville, Maryland 20857  
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