NIH GUIDE

for **GRANTS**

and CONTRACTS

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Vol. 11, No. 3, February 26, 1982

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HAVE YOU MOVED?

If your present address differs from that shown on the address label, please send your new address to: Grants and Contract Guide Distribution Center, National Institutes of Health, Room BJBN10, Building 31, Bethesda, Maryland 20205, and attach your address label to your letter. Prompt notice of your change of address will prevent your name from being removed from our mailing list.

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.

NIH GUIDE FOR GRANTS AND CONTRACTS

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ANNOUNCEMENT

AVAILABILITY OF OPPORTUNITIES FOR AMERICAN SCIENTISTS TO PERFORM COLLABORATIVE RESEARCH OUTSIDE THE UNITED STATES

FOGARTY INTERNATIONAL CENTER

The John E. Fogarty International Center for Advanced Study in the Health Sciences (FIC) of the National Institutes of Health announces the availability of postdoctoral fellowships to U.S. health scientists who wish to conduct collaborative research abroad. The purpose of these fellowships is to enhance the exchange of research experience and information in the various biomedical and behavioral sciences. The types of activity that are supported by these programs include collaboration in basic or clinical research, and the familiarization with or utilization of special techniques and equipment not otherwise available to the applicant. Applications having any of the following as the major feature cannot be accepted: brief observational visits, attendance at scientific meetings, attendance in formal training courses, or independent research projects within the host country.

PROGRAMS

Five programs are available to U.S. citizens or permanent residents:

SENIOR INTERNATIONAL FELLOWSHIP (SIF) (Supported and administered by the FIC)

SWEDISH MEDICAL RESEARCH COUNCIL FELLOWSHIPS (SMRC) (Supported by the Government of Sweden)

SWISS NATIONAL SCIENCE FOUNDATION POSTDOCTORAL FELLOWSHIPS (SNSF)

(Supported by the Government of Switzerland)

FRENCH NATIONAL INSTITUTE OF HEALTH AND MEDICAL RESEARCH (INSERM) POSTDOCTORAL FELLOWSHIPS (Supported by the Government of France)

NIH-FRENCH NATIONAL CENTER FOR SCIENTIFIC RESEARCH PROGRAM FOR SCIENTIFIC COLLABORATION (CNRS) (Under an agreement between the NIH and the CNRS, the two organizations

share in the support of U.S. and French scientists to work at laboratories in France and the U.S., respectively.)

ELIGIBILITY REQUIREMENTS

Applicants must meet the following requirements:

U.S. citizen or permanent U.S. resident;

Doctoral degree in clinical, behavioral or biomedical science;

Ten years or less or postdoctoral experience (SIF applicants should have five years or more postdoctoral experience not so specified for the CNRS);

Professional experience in the health sciences for at least two of the last four years (not so specified for the CNRS);

Affiliated with a U.S. public or private nonprofit research, clinical or educational institution (only required for SIF).

APPLICATION AND SELECTION

Applications for these programs are reviewed once annually. The receipt date for applications to the FIC Senior International Fellowship Program is June 1, 1982. The receipt date for all other applications is October 1, 1982. All applications are reviewed for scientific merit by the National Institutes of Health. The organization which provides financial support of the program selects candidates for participation. While the maximum period of support for all programs is one year, the minimum period of support varies with each program.

Information and applications are available from:

International Research and Awards Branch Fogarty International Center National Institutes of Health Bethesda, Maryland 20205

Prospective applicants for the Senior International Fellowship Program, the FIC sponsored program, may obtain information brochures from the above address. Only the office of the dean or equivalent institutional official may request SIF fellowship applications which will be available from January 15 to May 15, 1982.

All correspondence should refer to specific programs and must be clearly marked using one of the following:

Senior Fellowships Swedish Fellowships Swiss Fellowships INSERM CNRS

For an expedient reply, please send a self-addressed label with your request.

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NOTICE

NEW WORLD PRIMATE AVAILABILITY

As part of a major project in primate conservation and breeding, the Pan American Health Organization is providing services to South American countries in planning and operating wild primate management and primate breeding programs. These services are in part supported by the National Institutes of Health, in recognition of the need for international cooperation in conserving primates in their natural habitats as well as in research utilization. Programs have been initiated by Peru to protect endangered species such as Lagothrix flauvicauda (yellow-tailed woolly monkey), Cacajao rubicundus (redfaced uakari) and Callimico goeldii (Goeldi's marmoset). The Government of Peru has also established a program at Iquitos to breed monkeys and from which primate surveys and population monitoring are conducted. Another program is being developed in Columbia to bread Aotus trivirgatus (owl monkey), and extend previous nonhuman primate census work. As a consequence of their efforts, several species of primates are available to NIH grantees and contractors. These include:

Saimiri Sciureus

(gothic and roman arch squirrel monkeys) - colony produced and wild caught

Cebuella pygmaea

(pygmy marmoset) - colony produced and wild caught

Cebis appella

(brown capuchin) - wild caught

Saguinus fuscicollis

(saddle-back tamarin) - wild caught

Saguinus labiatus

(white lipped tamarin) - currently wild caught; colony produced animals will become available

Saguinus mystax

(moustached tamarin) - currently wild caught; colony produced animals will become available

Services can also be made available to scientists for conducting field studies relating to nonhuman primates with the assistance of program staff at Iquitos.

In order to assist Peruvian authorities in developing programs appropriate to meet future needs, users of New World primates are requested to inform the Interagency Primate Steering Committee (IPSC) of their projected requirements. Requests for animals and information concerning costs, and services that are available should be directed to:

Dr. Orland A. Soave Executive Director, IPSC National Institutes of Health Building 31, Room 4B-30 Bethesda, Maryland 20205

Telephone: 301-496-5424

REQUEST FOR RESEARCH GRANT APPLICATIONS: RFA

NIH-NIAID 82-5

SEXUALLY TRNSMITTED DISEASES RESEARCH UNITS

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Application Receipt Date: October 15, 1982

I. BACKGROUND INFORMATION

The National Institute of Allergy and Infectious Diseases (NIAID) invites applications for program project grants to be initiated during FY 1983 for participation in an ongoing program of research in Sexually Transmitted Diseases (STD). The policy of the NIAID states that program project proposals for STD research units will be received only at designated times. Support for proposals for creation of new STD research units, or for continuation of existing units, will be on a competitive basis. This RFA will be issued only once during fiscal year 1982.

One of the major health problems in the U.S. today is that of sexually transmitted (venereal) diseases. The explosive rise in gonococcal infections in the last decade, for example, has been considered a major infectious disease epidemic; it has been estimated conservatively that over 2,000,000 cases of gonorrhea occur each year, with the majority being unreported to public health agencies. Many other diseases are now also known to be transmitted by sexual contact and illness caused by them is being recognized with increasing frequency. Such diseases as genital herpes, hepatitis B, and group B streptococcal infections are examples of these. Nongonococcal urethritis (NGU) caused primarily by Chlamydia trachomatis and genital herpes are the most common of these infections, being second only to gonorrhea in numbers of cases.

The estimated cost of treating pelvic inflammatory disease (PID) may approach \$1.25 billion per year, to say nothing of the thousands of women of childbearing age who are rendered sterile as a result of PID. Genital herpes infections in pregnant women at term pose a most serious hazard to the neonate. Group B streptococcal infection transmitted by the pregnant woman to her offspring at birth poses a similar hazard.

The burden of identifying and treating these diseases is a serious public health and economic problem. The hidden costs of sexually transmitted diseases in family disruption, absence from education or gainful employment, ill health and individual misery can only be imagined. Research offers one positive means of eventually controlling this public health problem.

The NIAID has been in the forefront in support of research in STD. The program has grown rapidly since its inception in 1971, indicative of a widespread recognition of research opportunities for increased understanding and control of these diseases. The NIAID program currently supports research in this area by program projects, individual research projects, contracts, training grants, and individual postdoctoral fellowships.

II. RESEARCH GOALS AND SCOPE

The goal of the program is to encourage investigators to undertake research tht will provide the clinical, epidemiological and microbiological information needed to control sexually transmitted diseases. The NIAID wishes to broaden the scope of its program in research so that the knowledge gained may be applied to improvement in the means of prevention, diagnosis, and therapy of these infections.

A. Requirements of the Research Program Project

As one means of achieving the stated goals, the NIAID proposes to maintain support of a number of STD research units, or centers of excellence, to serve as foci for research and training in STD. These units are funded as program project grants. The research to be considered for emphasis in this program can be on any or all of the STDs that are currently recognized as significant public health problems, as listed under "Research Scope."

A strong clinical component should be a major part of the program project application. There are several distinguishing characteristics that must be considered in developing these research units of excellence in STD:

- 1. They will be based at a teaching hospital or a university or medical school, or at a medical school affiliated hospital.
- 2. The program project will be multidisciplinary, combining the efforts of investigators in both clinical and basic science disciplines to focus on different facets of the overall problem of STD infections.
- 3. Integration and coordination of different departments within an institution usually will be necessary for adequate program development. Different collaborating institutions can also be involved. Close coordination and cooperation with a public venereal disease clinic (e.g., a city or county clinic) is of prime importance for successful functioning of the research unit.
- 4. The program project will consist of a number of individual subprojects, each with a clearly identified research task, and each with a principal investigator, staff, and budget.

The program director will be responsible for the overall direction and administration of the total project. It is expected that the principal investigators of each of the subprojects will act as members of a strong and coordinated research team, the whole directed toward resolving some of the many problems in sexually transmitted diseases. The team concept is considered especially important in developing these program projects.

5. It is suggested that efforts be made to advance learning experiences in STD and to make medical students and doctoral candidates more aware of the needs and opportunities in STD research, at both the clinical and fundamental levels. A formal program of training that involves student stipends, however, will not be considered as part of this program. Formal training programs for both pre- and postdoctoral trainees are supported by a different funding mechanism.

Only institutions with demonstrated expertise in both clinical and basic sciences, and with strong, ongoing research programs and resources that can focus on a multidisciplinary and multifaceted attack on STD infections, will be considered for program project support under the provisions of this program.

B. Research Scope

The research efforts in this program will focus on the following diseases:

Gonorrhea; syphilis; nongonococcal urethritis caused by chlamydial agents alone or in combination (e.g., Ureaplasma); <u>Trichomonas</u> infections; viral infections - genital herpes, genital warts and hepatitis B; nonspecific vaginitis; group B streptococcal infections; parasitic infestations; enteric or other diseases that may be recognized as transmitted by the sexual route.

The specific areas of research interest for the above STD problems will be:

- 1. Biology of the causal organisms growth, nutrition, physiology and metabolism, antigenic structure, chemical composition.
- 2. Virulence factors of the microorganisms involved.
- 3. Antibody development and the role of humoral and cell mediated immune responses in the host.
- 4. Immunopathology of these diseases.
- 5. Pathogenesis and mechanisms of recovery and resistance; recurrent infections or reinfections.
- 6. Animal model systems for study of any facet of these diseases.
- 7. Immunodiagnosis antigen detection, identification, specificity.
- 8. Therapy immunotherapy development of candidate vaccines or antisera. Development of more useful antimicrobial therapeutic modalities. Study of development of antibiotic resistance.
- 9. Epidemiology of any of the STDs; this can include mathematical or computer modeling for useful control strategies.

Clinical and fundamental studies involving any or all of the above categories will be considered relevant to this program.

III. MECHANISM OF SUPPORT

Eligibility: Domestic universities, colleges, hospitals, laboratories, and other public or private institutions, including State and local governmental units, are eligible.

Length of Support: The project can be supported for a maximum of five years; this can be renewable, however, for an additional period, subject to the competitive review procedure and the availability of funds.

The Institute will attempt to maintain support for three STD program projects, dependent upon the availability of funds. For FY 1983, competition is open for support of at least two of these currently funded program projects in STD research. Although no specific level of available funding can be cited, the projects currently supported range from \$271,859 to \$468,313 in direct costs annually.

This program is supported under authorization of the Public Health Service Act, Public Law 78-410, as amended. The Catalog of Federal Domestic Assistance citation is Sec. 13.856, Microbiology and Infectious Diseases Research. Awards will be administered under PHS grant policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to A-95 Clearinghouse or Health Systems Agency review.

IV. REVIEW PROCEDURES AND CRITERIA

All proposals will receive an initial peer review by the Microbiology and Infectious Diseases Advisory Committee, a chartered Institute advisory committee. Final review will be made by the National Advisory Allergy and Infectious Diseases Council; applicants will be notified following the Advisory Council meeting in May 1983. The earliest possible funding date for approved new or competing proposals, if in a fundable category, will be July 1, 1983.

The reviewing groups will evaluate the entire program project as well as each individual subproject involved, with special consideration being given to overall scientific merit of the total project and of each of the subprojects, to innovative research approaches, and to the research team concept. The expertise of each investigator and his or her past productivity, in this or in closely related research areas, will also be considered. The facilities available, including access to clinical material, will also form part of the evaluation. Finally, budget requests for each subproject and for the total program project will be carefully reviewed. Budgetary adjustments may be made by the reviewers. A priority score will be given for the overall program project application by the initial review group. Other factors in addition to the priority score, however, also may be taken into consideration for possible support of a project.

Proposals considered by the DRG and the NIAID to be not responsive to the terms outlined in this RFA will be returned to the investigator. Late submissions will be considered not responsive to this RFA. The applicant may then wish to consider revising the application and submitting it to the Division of Research Grants as a regular research grant proposal.

All policies and requirements that govern the research grant programs of the PHS-NIH will apply.

V. METHOD OF APPLYING

The NIAID information brochure of August 1978 on program project grants should be requested from NIAID staff by prospective applicants prior to preparation of an application. The development of a program project proposal is clearly detailed in this brochure. In general, applications on standard application form PHS 398 (Rev. 5/80) should include:

1. A table of contents;

- 2. Description of the integrated program project with rationale and justification, and description of available laboratory and clinical facilities as well as approprite patient populations;
- 3. Complete description of each subproject;
- 4. Collaborative arrangements with other departments or with other institutions, if applicable;
- 5. A consolidated first year budget for the total project and a first year budget for each of the subprojects and the program core; budgets for future years' support of the total project and for each subproject are to be included.

It is recommended that Institute staff be contacted by letter of intent when development of a program project grant proposal is being considered, prior to formal submission. Inquiries should be directed to:

Milton Puziss, Ph.D., Chief Bacteriology and Virology Branch MIDP, NIAID National Institutes of Health Room 738, Westwood Building Bethesda, Maryland 20205

For purposes of identification and processing, the words SEXUALLY TRANSMITTED DISEASES PROGRAM PROJECT should be typed in item 2 on the face page of the application and a brief covering letter should be attached indicating submission is in response to this NIAID announcement.

Application kits may be obtained from the institution's business office. If not available there, they may be obtained from:

Office of Grants Inquiries Division of Research Grants National Institutes of Health Room 448, Westwood Building Bethesda, Maryland 20205

Forward the original application and six (6) copies to:

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

In order to alert NIAID to the submission of the proposal, please forward a copy (not the original) of the cover letter and the application face page to

Chief, Program and Project Review Branch, NIAID National Institutes of Health Room 703, Westwood Building Bethesda, Maryland 20205

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PROGRAM ANNOUNCEMENT

STUDIES ON NUTRITIONAL SUPPORT OF THE PATIENT

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE
NATIONAL INSTITUTE ON AGING
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
NATIONAL INSTITUTE OF ARTHRITIS, DIABETES, AND DIGESTIVE AND
KIDNEY DISEASES
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES

I. BACKGROUND INFORMATION

Nutrition is the sum of the processes by which an organism assimilates and utilizes food substances. Nutrition is basically the provision of biochemical substances in the quantities and ratios that are required for normal cellular functions. When a nutrient is given parenterally rather than enterally, it must be in a form and amount that is suitable for use in the metabolic pathways of the body. For most patients, nutrition simply maintains body mass and function until other treatment modalities are given the opportunity to affect the disease. For selected patients with cancer, trauma, infection, gastrointestinal diseases, and liver, renal, and cardiovascular and pulmonary diseases, certain elderly patients, and for infants with severe gastrointestinal congenital anomalies and low birth weight newborns, provision of adequate enteral or parenteral nutrients is thought to modulate morbidity and mortality directly.

The ability to provide nutrients for patients who cannot adequately ingest, digest or absorb food has been a major technological achievement of the past 15 years. The proper application of this important new technology is only starting to be understood. We need to know more about when to institute parenteral or enteral nutrition so that we can maximize therapy and avoid its indiscriminate use which increases medical costs and patient risk and discomfort. Apart from its obvious therapeutic importance, parenteral and enteral nutrition provides a powerful research tool with which to probe and manipulate host metabolism and physiology, particularly in animal models.

II. RESEARCH GOALS AND SCOPE

The emphasis of this program announcement is upon basic and clinical research aspects of nutritional support of patients. Some examples of areas of research interest are listed below by Institute.

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

The NHLBI is seeking research applications on the impact of nutritional status on defense functions in the adult and developing lung. Resistance to pulmonary infections and prevention of muscle fatigue for patients with acute and chronic pulmonary diseases are of interest to the Division of Lung Diseases, NHLBI.

NATIONAL INSTITUTE ON AGING

The NIA provides support for biomedical, social, and behavioral research and research training in the areas of diet and nutrition (both basic and clinical) as these relate to the aging process and needs of the aged individual. Consequently, the NIA is seeking studies that focus on enteral and parenteral nutritional support in elderly patients in acute and long-term care facilities.

The elderly in these facilities may have undergone long periods of marginal nutrition prior to entering the facility. In addition, the elderly as a group are more likely than others to be on multiple and/or long-term drug therapies. Because of those possible problems together with age-associated physiological changes such as changes in gastrointestinal and kidney functions, the elderly individual may require a different type of evaluation and a different nutritional regimen than the younger individual. Among the areas of particular interest to NIA are: specification of the nutritional requirements of elderly patients, assessment of the efficacy of current enteral and parenteral therapies for elderly patients, and the development and assessment of optimum methods for meeting the nutritional requirements of elderly patients, especially in the context of multiple disorders and medications.

Other issues include: the degree to which enteral or parenteral support impinge on psychological functioning of the elderly patient, family interactions, and social participation, and development of strategies to modify psychosocial factors and supports to foster most effective functioning.

The areas listed above are examples. They are not to be all inclusive.

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

The NIAID supports research into the interaction of nutrition, infection and immunity. Malnutrition affects immunocompetence and resistance to infection, but the precise mechanisms mediating such changes must be clarified. For example, can specific nutrients be administered to modulate the rapid metabolism and growth of immunocompetent cells? Which immunological tests can be influenced by nutritional therapy in the hypercatabolic patient? In general, the underlying disease needs to be separated from the nutritional state of the patient so that the relative effect of these two parameters on the modulation of immune function can be clarified. In addition, more research is needed to elucidate the effects of infectious agents on nutrient metabolism in patients and in animal models.

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

The NIADDK supports a broad range of investigations on the nutritional support of the patient. These may be primary nutrition-centered as well as organocentric and disease-oriented studies

Nutrition-centered research includes studies on nutritional support of the patient as it affects the nutritional status of the whole individual, such as obesity, chronic renal failure/ESRD, anorexia nervosa and surgical trauma; nutritional status assessment methodologies; effect of disease stress and

related conditions on nutritional requirements and the effect of nutrient intake levels on the course of specific diseases or conditions including chronic renal failure; metabolic consequences of by-passing the intestinal tract and liver in total parenteral nutrition (TPN), especially as it relates to the synthesis of "non-essential" dietary nutrients and efficiency of utilization; micronutrient requirements including vitamins and trace minerals of patients receiving TPN for extended periods; and the combined nutrient-drug management of patients.

Organocentric or disease-oriented studies on nutritional support of patients primarily involve investigations related to kidney, liver, pancreas, bone and digestive diseases. Examples of such are studies on the use of ketoacids or other amino acid analogues as a means of recycling ammonia; the effect of bowel rest and its use in the treatment of gastrointestinal diseases; effect of vitamin D metabolites and minerals in the prevention of osteoporosis and of renal osteodystrophy; and the effect of liver damage on the impairment of metabolic synthesis of dietary "non-essentials," thereby modifying the body's needs for preformed nutrients or metabolites.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

The NICHD is seeking studies that focus on the role that nutrition plays in early development. Particular emphasis is placed on nutritional support of the low-birth-weight infant and nutritional management of certain disease states of infancy and childhood. Included are conditions such as celiac disease and other disorders of digestion and absorption; diarrheal diseases; congenital malformations of the gastrointestinal tract and inborn errors of metabolism.

Research applications are also sought that focus on: the development and function of organ systems during parenteral nutrition; the safety and efficacy of intravenous administration of nutrients; factors regulating metabolism of these nutrients; and the influence that parenteral or enteral nutrition may have on the growth and development of the immature infant.

NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES

The principal goal of the research program on trauma and burns of the NIGMS is to expand the basic knowledge of the body's systemic response to accidental injury, including burns, in order ultimately to improve patient care, prevent death, speed recovery, and lessen the extent of disabilities. One area of emphasis within the program relates to studies on the metabolic and nutritional response to injury.

III. MECHANISM OF SUPPORT

The mechanism of support for this program will be the grant-in-aid. The regulations (Code of Federal Regulations, Title 42, Part 52; Title 45, Part 74) and PHS policies that govern the research grant programs of the National Institutes of Health will prevail. The award of grants pursuant to this announcement is contingent upon ultimate receipt of appropriated funds for this purpose.

IV. METHOD AND CRITERIA OF REVIEW

- A. Assignment of Applications: Applications will be received by the Division of Research Grants, NIH, referred to an appropriate study section for scientific review, and assigned to individual Institutes for possible funding. These decisions will be governed by normal programmatic considerations as specified in the DRG Referral Guidelines.
- B. Review Procedures: Applications in response to this announcement will be reviewed on a nationwide basis 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 by the appropriate Institute Advisory Council or Board with respect to the adequacy of the technical merit review and the program relevance of the research proposed. The review criteria customarily employed by the National Institutes of Health, for regular research grant applications will prevail.
- C. <u>Deadlines</u>: Applications will be accepted in accordance with the usual receipt dates for new applications: July 1, March 1, and November 1.

Investigators considering applying for program project grants should contact a representative of the appropriate Institute (see below) to obtain guidelines and instructions. Prospective applicants should note that the receipt dates for program project grant applications are June 1, October 1, and February 1.

Applications received too late for one review cycle will be held for the succeeding cycle.

V. 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 NIH NUTRITIONAL SUPPORT PROGRAM ANNOUNCEMENT" should be typed into item 2 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 one or more of the following individuals:

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National Heart, Lung, and Blood Institute

Dorothy Gail, Ph.D.
Structure and Function Branch
Division of Lung Diseases
National Heart, Lung, and Blood Institute
Room 6A03, Westwood Building
Bethesda, Maryland 20205

Telephone: 301-496-7171

National Institute on Aging

Elizabeth A. McGuire, Ph.D.
Physiology of Aging Branch
Biomedical Research and Clinical Medicine
National Institute on Aging
Building 31, Room 5C-27
Bethesda, Maryland 20205

Telephone: 301-496-9350

National Institute of Allergy and Infectious Diseases

Robert Edelman, M.D. Chief, Clinical and Epidemiological Studies Branch Microbiology and Infectious Diseases Program Building 31, Room 7A49 Bethesda, Maryland 20205

Telephone: 301-496-5893

National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases

Gerald Combs, Ph.D.
Nutrition Program Director
Digestive Diseases and Nutrition
Room 601, Westwood Building
Bethesda, Maryland 20205

Telephone: 301-496-7823

National Institute of Child Health and Human Development

Gilman D. Grave, M.D. Head, Nutrition and Endocrinology Section Clinical Nutrition and Early Development Branch Landow Building, Room 7C17 Bethesda, Maryland 20205

Telephone: 301-496-5575

National Institute of General Medical Sciences

Emilie A. Black, M.D. Assistant Director for Clinical Research Westwood Building, Room 925 Bethesda, Maryland 20205

Telephone: 301-496-7373

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