

# NIH GUIDE

## For Grants and Contracts

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The NIH Guide announces scientific  
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## NOTICES

### MANDATORY USE OF LATEST FELLOWSHIP APPLICATION KITS

P.T. 22; K.W. 0720005, 1014006

Division of Research Grants

Beginning with the September 10, 1989, receipt deadline, all applicants for the individual postdoctoral fellowship (F32) or senior fellowship (F33) must use the latest application kits (PHS 416-1, Revised 7/88 or 4/89). Only the 7/88 and 4/89 revisions are acceptable. Submissions on earlier versions of the PHS 416-1 are incompatible with new procedures for the expedited review of fellowship applications and will be returned without review.

### AVAILABILITY OF FISH OIL TEST MATERIALS

P.T. 34; K.W. 0780005

National Institutes of Health

#### SUMMARY AND PURPOSE

#### FISH OIL TEST MATERIALS PROGRAM

The Fish Oil Test Materials Program was established in 1986 through the cooperation of the National Institutes of Health (NIH), the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), and the National Oceanic and Atmospheric Administration/Department of Commerce (NOAA/DOC). This program, which is administered by the Division of Nutrition Research Coordination in the Office of Disease Prevention, NIH, was designed to provide a long-term, consistent supply of quality-assured/quality-controlled test materials to researchers in order to facilitate the evaluation of the role that omega-3 fatty acids play in health and disease.

#### Fish Oil Test Materials Advisory Committee:

The Fish Oil Test Materials Advisory Committee (FOTMAC) is cochaired by scientific staff from ADAMHA and NIH and is composed of scientists representing the funding agencies (NIH, ADAMHA), the research community, the Department of Commerce (DOC) and the Food and Drug Administration (FDA). The FOTMAC provides scientific advice to the DOC regarding the types of materials needed by research scientists, shipping procedures for the materials, and additional quality control and production issues. The committee is advisory to the Fish Oil Test Materials Program on general programmatic issues, such as future directions, and has produced a Good Lab Practices for Polyunsaturate Handling Manual. In addition, the committee provided guidance to DOC during the production of the Drug Master File that was submitted to the FDA by the FOTMAC. A manual on Analytical Methods for the Quality Assurance of Fish Oil was produced by the DOC.

#### Fish Oil Test Materials Distribution Committee:

A Fish Oil Test Materials Distribution Committee (FOTMDC) is composed of NIH and other Federal scientists that do not use these products. The Distribution committee processes the applications received from investigators, advises the DOC of applications that have fulfilled the application requirements, and makes recommendations regarding the distribution of requested materials.

The awarded materials are provided to investigators free of charge. Availability of materials are contingent on DOC/NOAA production capabilities. When prioritization is necessary, the order will be: 1) NIH/ADAMHA funded, 2) other government funded, 3) peer-reviewed, privately funded, 4) NIH/ADAMHA approved, not funded, and 5) other.

#### REQUIREMENTS

To qualify to receive materials described in this announcement, the applicant must: 1) be engaged in peer-reviewed research, and 2) submit a correctly completed application form and a signed waiver of liability. The committee will not be responsible for assessing the scientific merit of the application. Regulations on human subjects and animal research apply. In accordance with federal regulations, an IND number will be required for the use of these materials in human studies. The FOTMAC has established a drug master file at the FDA that includes manufacturing, chemical composition, and toxicological

data relevant to these products. Investigators using DOC/NOAA materials may reference this file in order to expedite their IND requests.

#### TEST MATERIALS CURRENTLY AVAILABLE

- o n-3 ethyl ester concentrate, prepared from menhaden oil, bulk packed or soft-gel encapsulated (80 percent n-3 fatty acids including EPA and DHA)
- o Ethyl esters of olive oil (70 percent oleic), bulk packed or soft-gel encapsulated
- o Deodorized menhaden oil, bulk packed or soft-gel encapsulated
- o Commercial preparations of corn, olive, or safflower oil, soft-gel encapsulated only

#### PROCESSING AND SPECIFICATIONS OF BIOMEDICAL TEST MATERIALS

##### o n-3 Ethyl Ester Concentrate

The n-3 ethyl ester concentrate is prepared from vacuum-deodorized menhaden oil using transesterification, urea adduction and short-path distillation. The concentrate contains approximately 80 percent n-3 fatty acid ethyl esters (44 percent EPA, 24 percent DHA, 10-12 percent other n-3 fatty acid ethyl esters), 3 percent C18 (other than n-3), 6 percent C16 and the remainder as other esters. It contains 0.2 mg/g TBHQ as antioxidant, 2 mg/g tocopherols and 2.0 mg/g cholesterol. The concentrate is available in 1 g soft-gel capsules (100 capsules/bottle) or packaged in bulk in quantities suitable to investigators needs.

##### o Placebo Ethyl Esters

The ethyl esters of virgin olive oil are prepared by transesterification. The preparation contains approximately 70 percent oleic acid, 13 percent C16, and 15 percent C18 (<1 percent n-3) fatty acid ethyl esters. It contains 0.2 mg/g TBHQ as antioxidant and 2 mg/g tocopherols. The preparation is available in 1 g soft-gel capsules (100 capsules/bottle) or packaged in bulk in quantities suitable to investigators needs.

##### o Deodorized Menhaden Oil

Deodorized menhaden oil is prepared from oil that has been winterized and alkali refined; it is processed through a two-stage wiped-film evaporator to remove cholesterol, volatile oxidation products, and any traces of organic contaminants. The oil contains approximately 30 percent n-3 fatty acids in the triglyceride form; 14 percent EPA, 8 percent DHA, 8 percent other n-3. It contains 0.2 mg/g TBHQ as antioxidant, 2 mg/g tocopherols, and 2.0 mg/g cholesterol. The deodorized oil is available in 1 g soft-gel capsules (100 capsules/bottle) or in bulk quantities suitable to investigators needs. Special requests for antioxidant-free oil will be considered.

##### o Placebo Oils

Commercial preparations of corn, olive, and safflower oil have been soft-gel encapsulated to serve as placebos for studies involving encapsulated menhaden oil. These oils contain 0.2 mg/g TBHQ as antioxidant and 2 mg/g tocopherols. The major fatty acids for each oil are: corn (58 percent 18:2n-6, 26 percent 18:1n-9), olive (17 percent 18:2n-6, 57 percent 18:1n-9), safflower (80 percent 18:2n-6, 9 percent 18:1n-9). They are available in 1 g soft-gel capsules (100 capsules/bottle). Although vegetable oils will not be supplied in bulk form, investigators may request analysis of antioxidant and tocopherol levels in vegetable oils that they purchase.

#### Test Materials Available in the Future:

Test materials and the relevant application process will be announced in the NIH Guide for Grants and Contracts as new materials become available.

#### Other Information:

The investigator will be provided with complete quality assurance data for each lot of test material shipped, general diet preparation information, and instructions for formulation of placebos containing antioxidants balanced to the level in the test material.

## INQUIRIES AND APPLICATIONS

Investigators may obtain further information on available fish oil test materials and request an application form from:

Ms. Melissa Workman  
Program Assistant  
Fish Oil Test Materials Program  
Division of Nutrition Research Coordination  
Building 31, Room 4B63  
National Institutes of Health  
Bethesda, Maryland 20892  
Telephone: (301) 496-2323

### DATED ANNOUNCEMENTS (RFPs AND RFAs)

#### HUMAN IMMUNODEFICIENCY VIRUS INHIBITORY FACTORS IN HUMAN SALIVA

RFA AVAILABLE: 89-DE-2

P.T. 34; K.W. 0715008, 0760035, 1002045

National Institute of Dental Research

Application Receipt Date: November 10, 1989

#### INTRODUCTION

The Periodontal and Soft Tissue Diseases Branch of the Extramural Programs of the National Institute of Dental Research (NIDR) invites project grant applications to study salivary inhibition of human immunodeficiency virus (HIV) infectivity. In view of recently reported preliminary findings indicating that human saliva exhibits HIV-inhibitory activity (1-3) the NIDR is soliciting applications to verify and amplify these initial findings, to begin studies to isolate, identify, and characterize active factors, and to determine their mechanisms of action.

This Request for Applications (RFA) is for a single competition with a receipt deadline of November 10, 1989. Applications should be prepared and submitted in accordance with the aims and requirements outlined below. Additional information may be obtained from the scientist administrators identified in the section APPLICATION AND REVIEW PROCEDURES below.

#### BACKGROUND

Despite the frequency and severity of oral lesions associated with HIV infection and AIDS, and the presence of HIV in gingival crevice fluid, recent studies indicate that HIV is detected only infrequently in human saliva. Since it is likely that the oral tissues of high risk individuals are repeatedly exposed to the virus, it was proposed that human saliva might contain factors inhibitory to HIV. Subsequently, initial findings were made in approximately 35 individuals, indicating that HIV-inhibitory activity may be present in whole saliva and in submandibular/sublingual saliva from HIV-seronegative men, women and children and from seropositive men. These experiments suggest that the inhibitory activity is due to salivary components which may coaggregate nonspecifically with the virus or with HIV-infected macrophages to form complexes that have the effect of isolating the virus from susceptible tissue cells. Another possibility is that proteolytic activity in the saliva may damage or destroy HIV directly, or degrade the reverse transcriptase enzyme, which is the basis for assaying the virus. Inhibition could also occur by the blockage of specific mechanisms involved in the infective process.

#### RESEARCH GOALS

Although the evidence for inhibitory factors is not conclusive, it is sufficiently provocative to warrant accelerated efforts to verify and amplify the initial findings, to begin efforts to isolate, identify, purify and characterize them, and to clarify their mechanisms of action, whether they involve salivary effects on the virus itself or on virus-containing macrophages.

It is envisioned that studies funded from this RFA will require the joint collaborative efforts of a competent virologist and an expert salivary biochemist. An expert in the immunology of oral secretions may also be needed. Proposed studies may focus on human saliva from normal,

non-HIV-infected individuals (seronegative) or from HIV-seropositive individuals without signs and symptoms of AIDS.

The NIDR anticipates funding meritorious proposals resulting from this RFA as early as March 1, 1990. To expedite the dissemination and exploitation of new data resulting from these studies, NIDR requests that investigators funded from this RFA provide written progress reports at six-month intervals. These reports should be submitted to Dr. Rizzo at the address given in the section APPLICATION AND REVIEW PROCEDURES below.

1. Fultz, P.N. Components of saliva inactivate human immunodeficiency virus. *Lancet* ii:1215, 1986.
2. Fox, P.C., Wolff, A., Yeh, C-K., Atkinson, J.C., and Baum, B.J. Saliva inhibits HIV-1 infectivity. *JADA* 116:635, 1988.
3. Fox, P.C., Wolff, A., Yeh, C-K., Atkinson, J.C., and Baum, B.J. Saliva inhibition of HIV-1 infectivity: Functional properties and distribution in men, women and children. *JADA* In press, June 1989.

#### MECHANISM OF SUPPORT

Awards will be made as regular research project grants (R01). Applicants may request up to 3 years of support. Subsequent support in this research area will be dependent upon submission by the applicant of a renewal application through established NIH procedures for research grants related to AIDS. Policies that govern research grant programs of the National Institutes of Health will prevail.

The NIDR will allocate funds to support projects from this RFA during 1990-1992; however, such awards are contingent upon receipt of appropriated funds. It is anticipated that at least three awards will be made, provided that research plans are of sufficient scientific merit and promise, and involve the appropriate expert collaborators. Applicants are encouraged to consider collaborative arrangements with investigators from other organizations, such as the NIDR and other NIH institutes.

#### APPLICATION AND REVIEW PROCEDURES

Applications submitted in response to this RFA will be reviewed for scientific merit by a Special Review Committee convened by the NIDR Scientific Review Branch. Secondary review will be carried out by the National Advisory Dental Research Council. Successful applications will be funded as early as March 1, 1990.

Review criteria for the proposals submitted will include the usual considerations made by NIH review groups, as well as special attention to the need for highly specific expertise in retrovirus biology, salivary biochemistry and immunology.

Applications should be submitted on form PHS-398 (Rev. 10/88), available in the business or grants office of most academic or research institutions or from the Division of Research Grants, National Institutes of Health. Applications received after November 10, 1989, and those which are deemed nonresponsive to the RFA will be assigned to a Division of Research Grants Study Section for initial review and will be reviewed with other unsolicited grant applications received during that review cycle. To identify the application as a response to this RFA, check "yes" on item 2 of page 1 of the application and enter RFA: 89-DE-2 "Human Immunodeficiency Virus Inhibitory Factors in Human Saliva." The RFA label available in the 10/88 revision of Application Form PHS-398 must be affixed to the bottom of the face page. Failure to use this label could result in delayed processing of your application such that it may not reach the review committee in time for review.

The original and 22 copies should be received by November 10, 1989, at:

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

Two copies should be sent to:

Anthony A. Rizzo, D.M.D.  
Chief, Periodontal & Soft Tissue  
Diseases Research Branch  
National Institute of Dental Research  
Westwood Building, Room 509  
Bethesda, Maryland 20892-4500  
Telephone: (301) 496-7784

Inquiries concerning this RFA may be addressed to Dr. Anthony Rizzo or Dr. Matthew Kinnard at (301) 496-7784.

This program is described in the Catalog of Federal Assistance No. 13.122. Awards will be made under authorization of the Public Health Service Act, Title III, Section 301 (Public Law 78-410, as amended), and administered under PHS grants policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to the intergovernmental review requirements of Executive Order 12372 or Health Systems Agency review.

DEVELOPMENT AND CHARACTERIZATION OF IMMORTALIZED SALIVARY GLAND EPITHELIAL CELL LINES

RFA AVAILABLE: 89-DE-3

P.T. 34; K.W. 0780000, 0780015, 1002058, 0790005

National Institute of Dental Research

Application Receipt Date: December 13, 1989

The Caries, Restorative Materials, and Salivary Research Branch of the Extramural Program of the National Institute of Dental Research invites regular research project grant (R01) applications to be considered in a single competition for support of research on the development and functional, structural, and antigenic characterization of immortalized normal human and rodent salivary gland (all types, both major and minor) epithelial (all types, both acinar and ductal) cell lines capable of maintaining the differentiated parental strain phenotype. Establishment of such cell lines would greatly facilitate definitive studies of salivary-specific gene expression in developing and adult glands, molecular mechanisms of salivary gland exocytosis, and regulation of fluid and electrolyte transport.

It is anticipated that up to four awards will be made, if a sufficient number of high quality applications is received. The earliest funding date is July 1, 1990.

Applications should be prepared and submitted in accordance with the objectives and requirements described in the full RFA, available from:

G. G. Roussos, Ph.D.  
Chief, Caries, Restorative Materials,  
and Salivary Research Branch  
National Institute of Dental Research  
Westwood Building, Room 505  
Bethesda, Maryland 20892-4500  
Telephone: (301) 496-7884

Awards in response to this announcement will be made to foreign institutions only for research of very unusual merit, need, and promise, and in accordance with Public Health Service policy governing such awards.

ENVIRONMENTAL FACTORS PREDISPOSING TO THE ACQUISITION OF DRUG ABUSE

RFA AVAILABLE: DA-89-05

P.T. 34; K.W. 0404009, 0411005, 0725000

National Institute on Drug Abuse

Application Receipt Dates: February 15, 1990 and  
May 15, 1990

The National Institute on Drug Abuse (NIDA) invites applications for basic laboratory research on the environmental factors that predispose to the acquisition of drug abuse.

## Purpose

After initial use of an abusable drug, individuals vary widely in their subsequent pattern of use. Some, for example, abstain. Others rapidly escalate to the point of compulsive use while others reach that point slowly. Clearly, there are differential risks for drug abuse. The conditions which create these differential outcomes are not well understood. Additional basic experimental research is needed to study the environmental factors that determine the differential outcomes following initial drug use.

## Research Objectives

There is a large and growing body of basic research on the variables which affect drug taking once it is established. However, factors which predispose individuals to the acquisition of drug taking are largely unexplored. Some of the predisposing variables that contribute to the differential risk of drug taking may lie in the individual's past, such as social environment. Other variables may be found in the individual's present environment, including drug-related factors such as dose and route of administration, as well as non-drug factors such as density of other positive reinforcers and presence of aversive contingencies.

Laboratory experiments on the acquisition of drug taking and its predisposing variables should yield important information on the variables that facilitate, retard, and prevent drug taking, including answers to questions such as the following: Do variables which generate faster acquisition of drug taking also generate a higher degree of drug taking? Do drugs with high abuse potential in humans generate faster acquisition of drug taking in animals? Are there variables that can produce rapid escalation of drug taking from a low level baseline? Are there predisposing factors essentially the same for all drugs or do different drugs have different predisposing factors? This research should be designed to produce important information for designing prevention strategies as well as intervention strategies.

## Mechanisms of Support

The support mechanism for grants in this area will be the individual research grant (R01), the small grant (R03) and the FIRST award (R29). Applications submitted in response to this RFA will compete for approximately \$1.0 million in new grant money expected to be available for this purpose in Fiscal Year 1991. This level of activity is dependent on the receipt of a sufficient number of applications of suitable, scientific merit. Also, the amount of funding available will depend on appropriated funds and program priorities at the time of award.

## Application and Review Procedures

Applications in response to this announcement will be reviewed in accordance with the usual Public Health Service peer review procedures for research grants. Review criteria include the relevance of the proposed research to improving understanding of the basic behavioral factors underlying the development of drug abuse and those that prevent or retard development of drug abuse, and the potential of the research to provide information relevant to improving methods of prevention of drug abuse.

Insert the title and number of this RFA, "ENVIRONMENTAL FACTORS PREDISPOSING TO THE ACQUISITION OF DRUG ABUSE" RFA DA-89-05, on line 2 of the face page of the application (PHS 398, rev. 10/88).

The RFA label available in the 10/88 revision of the application form PHS 398 must be affixed to the bottom of the face page. Failure to use this label could result in delayed processing of the application such that it may not reach the review committee in time for review.

For copies of the complete RFA, please contact:

Grants Management Branch  
National Institute on Drug Abuse  
Parklawn Building, Room 10-25  
5600 Fishers Lane  
Rockville, Maryland 20857  
Telephone: (301) 443-6710



For information about the program, please contact:

Dr. Cora Lee Wetherington  
Division of Clinical Research  
National Institute on Drug Abuse  
Parklawn Building, Room 10A-16  
5600 Fishers Lane  
Rockville, Maryland 20857  
Telephone: (301) 443-1263

INTERVENTIONS FOR CONTROL OF ASTHMA AMONG BLACK AND HISPANIC CHILDREN

RFA AVAILABLE: 89-HL-11-L

P.T. 34, FC, FD; K.W. 0715013, 0795003

National Heart, Lung, and Blood Institute

Application Receipt Date: December 1, 1989

The Division of Lung Diseases, National Heart, Lung, and Blood Institute (NHLBI), announces the availability of a Request for Applications (RFA) on the above subject. Copies of the RFA are available from the Division. Awards will not be made to foreign institutions.

Asthma is a major public health problem in the United States, affecting 10 million people and resulting in high medical care costs and absenteeism from work or school. However, it is possible, generally through drug treatment and self-management, to achieve adequate control of symptoms.

Asthma appears to be an even greater problem among minority populations, especially Blacks than among whites. Asthma deaths have been reported to be three times higher in Blacks in comparison with whites and hospitalization rates for Blacks are twice those of whites. Impediments to achieving control include not having access to continuity of medical care, lack of adherence to treatment regimens, and problems associated with effective self-management. Other associated barriers may include low educational and literacy levels, inadequate housing, and language and other cultural differences between health care providers and patients that may impede effective provider-patient interaction.

This program invites grant applications for demonstration and education research projects to develop, implement, and evaluate interventions to achieve long-term control of asthma among Black and Hispanic children. A hypothesis specifically focused on the target population and measurements of changes in health status and health behavior must be included. Funding requests to support existing asthma control programs without a research component or to investigate the effectiveness of clinical therapies would not be considered responsive to this solicitation.

This solicitation may be of interest to investigators from a broad range of disciplines such as pulmonary medicine, pediatrics, behavioral sciences, epidemiology, public health, health education, biostatistics, and communication sciences. Multidisciplinary approaches are appropriate. Applicants must demonstrate access to a defined target population of Black and/or Hispanic children, a control or comparison group, and expertise within the proposed research team to carry out research sensitive to the needs of the minority population. It is anticipated that up to four grants, for a maximum of five years each, will be awarded under this program.

Requests for copies of the RFA should be addressed to:

Joan M. Wolle, Ph.D., M.P.H.  
Health Scientist Administrator  
Prevention, Education, and Research Training Branch  
Division of Lung Diseases  
Westwood Building, Room 640  
5333 Westbard Avenue  
Bethesda, Maryland 20892  
Telephone: (301) 496-7668

\*\*THE MAILING ADDRESS GIVEN FOR SENDING APPLICATIONS TO THE DIVISION OF RESEARCH GRANTS OR CONTACTING PROGRAM STAFF IN THE WESTWOOD BUILDING IS THE CENTRAL MAILING ADDRESS FOR THE NATIONAL INSTITUTES OF HEALTH. APPLICANTS WHO USE EXPRESS MAIL OR A COURIER SERVICE ARE ADVISED TO FOLLOW THE CARRIER'S REQUIREMENTS FOR SHOWING A STREET ADDRESS. THE ADDRESS FOR THE WESTWOOD BUILDING IS:

5333 Westbard Avenue  
Bethesda, Maryland 20816