NIH GUIDE for GRANTS and CONTRACTS

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Vol. 11, No. 2, January 29, 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 B3BN10, 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.

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NOTICE

REVISED SUBMISSION PROCEDURE FOR GRANT APPLICATIONS

The Division of Research Grants has initiated a more efficient processing of the grant application form PHS 398. Your cooperation in following these revised submission instructions would be most helpful. The text of the new instructions follows:

> "Mail or deliver the complete and signed typewritten original of the application (including the CHECKLIST) and six signed, exact photocopies, in one package, together with six copies of any APPENDIX materials, to the Division of Research Grants, Room 240, Westwood Building, 5333 Westbard Avenue, Bethesda, MD 20205. The photocopies must be clear and single-sided. A preaddressed mailing label is provided in the application kit. Do not bind or staple the sets, but secure them with rubber bands or paper clips. Include the self-addressed three-part postcard, form PHS 3830, provided in the application kit." (Revisions underlined).

NOTICE

A CONFERENCE ON THE NIH CONTRACT AWARD AND ADMINISTRATION PROCESS

The NIH Division of Contracts and Grants and the University of Connecticut invite interested parties to attend a Conference sponsored by the University of Connecticut at their Storrs Campus on 29 and 30 April 1982. An actual NIH case study will be followed from initiation to completion.

AGENDA

DIFFERENCES BETWEEN CONTRACTS, GRANTS AND COOPERATIVE AGREEMENTS, MISCONCEPTIONS ABOUT CONTRACTS - Mr. Carl Fretts, Director, Division of Contracts and Grants, NIH

SEGMENT I - PROGRAM PLANNING, DEVELOPMENT, AND CONCEPT CLEARANCE - Dr. George Galasso, Chief, Development and Applications Branch, NIAID, and Mr. Lewis Pollack, Chief, Contract Management Branch, NIAID

SEGMENT II - REQUEST FOR CONTRACT TO RELEASE OF RFP - Mr. Lawrence Fitzgerald, Chief, Contracts Management Branch, NINCDS

SEGMENT III - DEVELOPMENT OF THE PROPOSAL FOR SUBMISSION - Mr. David Herman, Director, Office of Grants and Contracts, The University of Connecticut

SEGMENT IV - PROPOSAL RECEIPT AND EVALUATION - Mr. Curtis Tate, Deputy Director, Division of Contracts and Grants, NIH

RECEPTION AND DINNER -- Faculty-Alumni Center

SEGMENT V - COMPETITIVE RANGE THROUGH CONTRACT AWARD - Mr. James Graalman, Chief, Research Contracts Branch, NCI

SEGMENT VI - POST AWARD CONTRACT ADMINISTRATION - Mr. Richard Wagner, Chief, Contracts Management Section, NICHHD

UPDATE ON CONTRACT TRENDS - Mr. Carl Fretts

To register, contact the following individual:

Mr. David E. Herman
Director
Office of Grants and Contracts
University of Connecticut
Storrs, Connecticut 06268

Telephone: (203) 486-4436

Registration fees are $135 for early registrants (before March 15) and $155 for late registrants.

Any questions may be directed to Mr. David Herman of the University of Connecticut or:

Mr. Carl A. Fretts
Director
Division of Contracts and Grants
National Institutes of Health
Building 31, Room 1B03
9000 Rockville Pike
Bethesda, Maryland 20205

Telephone: (301) 496-4422

Please note that this conference will review the entire contract award process. It is not one in the series of proposed "special topic" contract seminars being considered by NIH. These "special topic" seminars will be announced at a later date.

ANNOUNCEMENT

PREVENTIVE CARDIOLOGY ACADEMIC AWARD

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

APPLICATION RECEIPT DATE: April 1, Annually
LETTER OF INTENT: March 1 (Preceding Application)

The Division of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute has initiated the Preventive Cardiology Academic Award to provide a stimulus for the development of a preventive cardiology curriculum in those schools of medicine and osteopathy that do not have one and to strengthen and improve the preventive cardiology curriculum in those schools that do. Each school of medicine or osteopathy in the United States and its possessions or territories is eligible to compete for one award for a project period that does not exceed five years. The number of awards made each year will depend upon the merit of the applications receive and availability of funds.

For the purposes of the Preventive Cardiology Academic Award, the term preventive cardiology is used to define the area of cardiovascular medicine having a special concern with the development of knowledge and the application of knowledge directed at the prevention of heart and vascular diseases. This includes the area of primary prevention of cardiovascular diseases in infants, children, and adults who are at risk of developing such diseases and the reduction of preventable complications or disability in persons who have already developed cardiovascular disease.

This award is intended to:

- encourage the development of a high quality preventive cardiology curriculum in schools of medicine and osteopathy that will significantly increase the opportunities for students and house staff to learn both the principles and practice of preventive cardiology;

- develop promising faculty whose interest and training are in preventive cardiology teaching, research, and practice;

- develop established faculty who have a major commitment to and possess educational skills for teaching preventive cardiology;

- facilitate interchange of educational ideas and methods applicable to teaching preventive cardiology among awardees and institutions;

This program is described in the Catalog of Federal Domestic Assistance No. 13.837, Heart and Vascular Diseases Research. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 78-410 as amended; 42 USC 241) and Section 413 (42 USC 287b) and 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.

- develop at the grantee institution the ability to strengthen continuously the improved preventive cardiology curriculum, with local funds, subsequent to the award.

CRITERIA FOR THE AWARD

Competitive review of proposals will include an evaluation of the evidence of commitment of both the sponsoring institution and the head of the cardiology division to the accomplishment of the objectives of the award as well as the qualifications, interest and commitment of the candidate to undertake responsibility for implementing a high quality preventive cardiology curriculum. Sponsorship of the candidate must be by the head of the division responsible for the teaching and practice of cardiology in the institution. Joint appointments with other departments or schools such as Preventive Medicine, Pediatrics or Epidemiology are encouraged when they would lead to a meaningful enhancement of the curriculum, extend concepts of prevention to other teaching areas or enhance the candidate's professional development in preventive cardiology teaching, research or practice. Multidisciplinary programs are encouraged.

The candidate must have sufficient clinical training and research experience in cardiology to be able to develop and implement a high quality curriculum within the institution. If the candidate's background requires further educational development, the plans to acquire this additional training should be described. Relevant training in epidemiology, clinical trials, behavioral science or other areas could be advantageous in the broader role of the candidate in stimulating preventive cardiology concepts among other peer health professionals in the institution.

PROVISIONS OF THE AWARD

The non-renewable Preventive Cardiology Academic Award will include funds for the awardee's salary, fringe benefits, funds for curriculum development, and actual indirect costs not to exceed 8% of total allowable direct costs.

The applicant may request salary support up to $30,000 per year. In addition to this amount, fringe benefits may be requested at the applicable institutional rate.

The applicant must devote a minimum of 50% time to this grant and the salary which is requested may not exceed the time or effort to be devoted to the Preventive Cardiology Academic Award. The total salary on which it is based must be consistent both with the established salary structure at the institution and with salaries actually provided by the institution from its own funds to other staff members of equivalent qualifications, rank, and reponsibilities in the department concerned. If full-time salaries are not currently paid to comparable staff members, the proposed salary must be appropriately related to the existing part-time salary structure. The awardee may devote up to 50% effort as principal or participating investigator on an NIH-supported grant(s) or contract(s) and may be remunerated from the grant(s) or contract(s) accordingly.

Developmental funds may include personnel support necessary to achieve the program objectives; travel funds to enable the awardee to visit other institutions or to attend special meetings, courses or conferences designed to increase his/her knowledge and competence in the teaching/learning process related to preventive cardiology; equipment necessary as teaching aids; supplies necessary to the program objectives; and stipends for a limited number of students to extend their preventive cardiology learning experience during their elective quarter in the academic year. Funds may not be used to support cardiology fellowships or research projects.

REVIEW OF APPLICATIONS

Applications for initial Preventive Cardiology Academic Awards will be appraised in terms of criteria outlined for the institution and the awardee in **Criteria for the Award.**

The review will include an initial assessment of the written proposal and an interview with the prospective awardee in Bethesda, Maryland by the Research Manpower Review Committee managed by the Division of Extramural Affairs of NHLBI. (Travel expenses for this interview must be paid by the applicant institution.) When necessary, a site visit may be made to the institution to determine the institutional environment, the commitment of the sponsoring division or department head and evidence of cooperation that may be needed to implement the candidate's proposed program. The initial review group will recommend applicants for consideration to the National Heart, Lung, and Blood Advisory Council.

METHOD OF APPLYING

Each prospective applicant should forward a letter of intent, countersigned by the head of the cardiology division or department, by March 1 preceding the receipt date to:

Dr. Carol Letendre
Contracts, Clinical Trials, and Training
Review Section
Review Branch, Division of Extramural Affairs
National Heart, Lung, and Blood Institute
Westwood Building, Room 548
Bethesda, Maryland 20205

These letters will not be considered commitments but will be used to estimate the number of proposals to be submitted.

Applications for Preventive Cardiology Academic Awards may be submitted for the April 1 receipt date each year to the National Institutes of Health for review by the National Heart, Lung, and Blood Advisory Council the following September. The requested beginning date for funding should be July 1 of the year following the receipt date.

Application forms (PHS 398) may be obtained from the administrative office of the applicant institution or from the Division of Research Grants, NIH.

DEADLINE FOR RECEIPT OF APPLICATIONS

Beginning in April 1980, the annual receipt date was established as follows:

APPLICATION RECEIPT	COUNCIL REVIEW	START DATE
April 1	September	July 1*

* Of the year following application receipt.

FOR ADDITIONAL INFORMATION

Prospective applicants are encouraged to review the Preventive Cardiology Academic Awards Guidelines dated December 1, 1981, which detail the eligibility requirements and application procedures. Requests for copies of these guidelines and questions related to Preventive Cardiology Academic Award should be directed to:

Dr. William T. Friedewald
Acting Chief, Preventive Cardiology Branch
Division of Heart and Vascular Diseases
National Heart, Lung, and Blood Institute
Federal Building, Room 212A
Bethesda, Maryland 20205

Telephone: (301) 496-2533

REQUEST FOR RESEARCH GRANT APPLICATIONS (RFA)

USE OF PERFLUOROCHEMICALS IN BASIC AND APPLIED RESEARCH

DIVISION OF BLOOD DISEASES AND RESOURCES

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

APPLICATION RECEIPT DATE: June 1, 1982
LETTER OF INTENT: March 1, 1982

The Division of Blood Diseases and Resources (DBDR) sponsors fundamental and clinical research grants and contracts related to the characterization, preservation, and use of blood and its components. The Division's research interests are directed toward improvement of blood fractionation, development of new fractionation products, improvement of the storage of blood and its products, proper use of blood components in therapy, and elimination of the hazards of blood transfusion (with special emphasis on the problem of posttransfusion hepatitis). The Division also sponsors research related to the synthesis, screening, and biological activity of artificial blood substitutes. The present RFA, however, is intended to foster fundamental and applied research using available perfluorochemical blood substitutes as research tools.

This RFA, which will use the customary grant-in-aid mechanism of the National Institutes of Health, will be governed by the policies for regular research grants. The responsibility for planning, directing, and executing the proposed research project will be solely that of the applicant.

The present RFA announcement is open to all interested investigators and will feature a single competition with a specified deadline for receipt of applications. It is anticipated that all applications in response to the RFA will be reviewed at the same time by a single review panel. Funded applications will be considered as regular research grants, with the exception that cooperation between investigators and the staff of the National, Heart, Lung, and Blood Institute (NHLBI) will be encouraged.

In contrast to the standard procedure for submission of regular applications for research grants, potential applicants are requested to send, by March 1, 1982, a letter of intent to submit an application. The original and 6 copies of the application are to be sent to the Division of Research Grants and 18 copies are to be sent to Dr. Charles L. Turbyfill. The deadline for receipt of applications is June 1, 1982. A brief covering letter should be

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This program is described in the Catalog of Federal Domestic Assistance No. 13.839, Blood Diseases and Resources. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 78-410, as amended; 42 USC 241) and administered under PHS 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.

enclosed indicating that the application is being submitted in response to the RFA NHLBI-DBDR-82G-I: USE OF PERFLUOROCHEMICALS IN BASIC AND APPLIED RESEARCH. Applications should be prepared in accordance with the aims and requirements described in the following sections:

I. BACKGROUND INFORMATION

In 1966, Clark and Gollan demonstrated that mice survived when totally immersed in an oxygenated liquid perfluorochemical (1). Later, it was shown that rat hearts remained viable in vitro when alternately perfused with oxygenated perfluorochemical and with aqueous perfusion fluid (2). Sloviter and Kamimoto were able to sustain rat brain in vitro for several hours by perfusion with perfluorochemical dispersed in serum (3). These classic experiments established the potential usefulness of these compounds.

Perfluorochemicals consist of hydrocarbons or other organic compounds in which all hydrogen atoms have been replaced by fluorine atoms. Oxygen is so highly soluble in most liquid perfluorochemicals that as much as 65 percent oxygen by volume can be dissolved in the undiluted perfluorochemical. By contrast, whole blood can dissolve approximately 20 percent oxygen, and saline or plasma only 3 percent.

Pure perfluorochemicals, however, are immiscible with blood. Nevertheless, Geyer showed that rats given an aqueous solution of perfluorochemical, pluronic polyols, electrolytes, glucose, and antibiotics to replace the total blood volume could survive as long as eight hours without being given plasma proteins or blood cells (4). The pluronic polyols not only helped emulsify the perfluorochemical but also contributed to the oncotic pressure. Changing the composition of the blood substitutes, altering the flow characteristics, and introducing hydroxyethyl starch (HES) has also been studied by Geyer in completely exchanged (bloodless) rats. These rats not only survived the removal of all blood constituents but also were active and alert in the postexchange period; they performed such normal functions as eating, drinking, washing, and urinating. The animals continued to live and regenerate normal red cells and plasma proteins and to grow and develop normally (5). These findings provided the major impetus for the practical use of perfluorochemicals as oxygen-carrying red cell substitutes.

Recently, emulsions of perfluorochemical have been administered to humans, with encouraging results. Makowski et al. (6) administered, without untoward reactions, a commercially prepared perfluorochemical emulsion (trade name Fluosol-DA) to seven decerebrate humans. Similarly, Ohyanagi et al. (7) successfully infused Fluosol-DA in ten healthy adult male volunteers.

Fluosol-DA has been used with apparent success in approximately 200 surgical patients in Japan and over 20 Jehovah's Witnesses patients in the United States suffering from blood loss or anemia. A few case reports recently have appeared in the literature; however, information from well-controlled clinical trials is still lacking.

Fluosol-DA consists of a mixture of two perfluorochemical compounds, perfluorodecalin and perfluorotripropylamine. Perfluorotripropylamine stabilizes the emulsion; however, the half-life in the body is approximately 65 days, which is longer than is desirable for clinical use in humans. The DBDR is currently supporting studies to develop improved emulsions that are more rapidly eliminated from the body and to search for new perfluorochemical compounds devoid of other undesirable physiological properties.

References

1. Clark, L.C., Jr., and Gollan, F.: Survival of mammal breathing organic liquids equilibrated with oxygen at atmospheric pressure. Science 152:1755-1756, 1966.

2. Gollan, F., and Clark, L.C., Jr.: Organ perfusion with fluorocarbon fluid. Physiologist 9:191, 1966.

3. Sloviter, H.A., and Kamimoto, T.: Erythrocyte substitute for perfusion of brain. Nature (London) 216:458-460, 1967.

4. Geyer, R.P., Monroe, R.G., and Taylor, K.: Survival of rats totally perfused with a fluorocarbon-detergent preparation. In Organ Perfusion and Preservation (J.C. Norman, ed.), pp. 85-96, Appleton, New York, 1968.

5. Geyer, R.P.: Studies and uses of perfluorochemical emulsions as blood substitutes. In Proceedings of HS Symposium on Research on Perfluorochemicals in Medicine and Biology, April 28-29, 1977, Stockholm (Novakova, V., and Plantin, L.O., eds.), Karolinska Institute Research Center, Huddinge, Sweden, pp. 229-279, 1978.

6. Makowski, H., Tentschev, P., Frey, R., Necek, S.T., Bergmann, H., and Blauhut, B.: Tolerance of an oxygen-carrying colloidal plasma substitute in human beings. In Proceedings of the IVth International Symposium on Perfluorochemical Blood Substitutes 1978, Kyoto, Excepta Medica (publisher), Amsterdam, pp. 47-53, 1978.

7. Ohyanagi, H., K. Toshima, M. Sekita, M. Okamoto, T. Itoh, T. Mitsuno, R. Naito, T. Suyama and K. Yokoyama: Clinical studies of perfluorochemical whole blood substitutes: Safety of Fluosol-DA (20%) in normal human volunteers. Clinical Therapeutics 2, 306-312, 1979.

II. GOALS AND SCOPE

Substantial efforts have gone into the synthesis and screening of new perfluorochemical compounds for use as potential blood substitutes. It is not the intent of this RFA to foster similar studies, but, rather, to encourage urgently needed fundamental and applied research using the perfluorochemical-exchanged animal as a basic research tool. Although perfluorochemicals have been available for several years, relatively few fundamental studies involving bloodless animals have been performed. This situation is a result, in part, of the small number of investigators in the field. Some areas of interest are summarized in the following paragraphs and should serve as guidelines to the type of studies that may be appropriate. These examples represent only a sampling of the type of work that would be responsive to the goals of this RFA; investigators are also encouraged to consider other studies and approaches.

The use of animals made bloodless with perfluorochemical emulsions has yielded important new information. For example, rats exchanged with perfluorochemical emulsions were shown to survive in 10 percent or higher concentrations of carbon monoxide. This experiment demonstrated, for the first time, that carbon monoxide kills by anoxia rather than at the cellular level. This technique has enabled the study of the effects of acute and chronic carbon monoxide exposure without the complications of carboxyhemoglobin formation and anoxia. Additional studies in this area are needed and encouraged.

In bloodless rats, the number of erythrocytes recovered during total exchange perfusion with perfluorochemical exceeds the number of erythrocytes calculated to be present at the start of the experiment. These additional cells are predominantly reticulocytes. Similar recovery data have been obtained with leukocytes, platelets, and plasma proteins. Studies involving the effects of partial or total removal of blood cells or plasma proteins are of interest and would be responsive to the goals of the RFA. For example, the kinetics of cellular or plasma protein synthesis could be examined under precisely controlled conditions. Moreover, the sequence in which different blood components return to the circulation starting at essentially zero concentration could be followed.

The discovery that the temporary loss of gamma globulin and the reduction in the number of leukocytes in bloodless rats does not give rise to infections is of interest and requires further study. Furthermore, the findings that the loss of clotting factors after exchange did not result in abnormal bleeding in the rat is an extremely interesting phenomenon and one that deserves further investigation.

In cases of vascular occlusions such as embolism and atherosclerosis, perfluorochemical substitutes could improve oxygen transport because the finely dispersed perfluorochemical may enter affected areas more readily than does whole blood. Studies of its use in cerebrovascular occlusion would be of particular interest, especially in the light of results already obtained which demonstrate that perfluorochemicals reduce myocardial ischemic damage after experimental coronary occlusion.

In the hypertension area, abnormal sodium and potassium ion fluxes in cells such as erythrocytes have been proposed as indices of elevated blood pressure. The use of bloodless animals may be useful in elucidating this phenomenon.

Blood substitutes may also be used in the study of hematopoiesis, the transport of biologically active molecules, the functions of enzymes in circulation, and factors affecting the blood-brain barrier. The treatment of toxemias could benefit from temporary replacement of total blood volume. This technique has been used in cases of hepatic coma, where the patient's body temperature is lowered and oxygenated saline-albumin is employed as the replacement preparation. Such treatment is of short duration. With a satisfactory artificial blood substitute, long-term total-body perfusion would be possible at normal body temperature. Moreoever, it would not be necessary to replace the substitute with normal blood once the perfusion had been ended.

Organ perfusion and preservation are areas of immediate application for substitutes. Whether for transplantation or for studies on organ metabolism, the ability to maintain well-functioning organs in vitro is an important goal. Blood substitutes would free erythrocytes and plasma (serum) for other purposes and also offer more convenience than the natural materials. Adverse alteration of normal blood components by pumps, oxygenators, filters, and other equipment could be avoided if stable artificial mixtures were used rather than blood.

The examples cited above illustrate the potential of blood substitutes in medical research and the type of research projects that would fulfill the objectives of this program. Investigators are encouraged to consider other approaches. In the event applications related to the scientific programs of other Institutes are received, review and potential support by those Institutes or joint review and support with the NHLBI will be arranged as appropriate.

The major thrust of this initiative is to encourage work in areas where perfluorochemicals may have potential research use other than merely as a blood replacement solution. The Division is currently supporting several studies on the potential clinical use of perfluorochemicals as red cell substitutes. Those perfluorochemicals which have been shown in documented studies to be effective substitutes are to be utilized by applicants. A list of suitable perfluorochemicals and their respective manufacturers will be made available to interested applicants upon request.

III. MECHANISM OF SUPPORT

The support for this program will be the traditional grant-in-aid of the National Institutes of Health. Applicants, who will plan and execute their own research programs, are requested to furnish an outline of the segments into which the program can be logically divided, and their own estimates of the time required to achieve specific objectives of the proposed work.

The total project period of this proposal must not exceed three years. A starting date of September 30, 1982, should be requested.

Although this RFA is included in the Institute's financial plans for fiscal year 1982, support of grants pursuant to this RFA is contingent upon ultimate receipt of appropriated funds for this purpose. The award of grants will be influenced by the amount of funds available to the Division, by the overall merit of proposals, and by their relevance to the program goals. A variety of approaches would be responsive to this announcement; accordingly, a range of costs are expected among individual grants awarded. It is anticipated that approximately 4 to 5 grants will be awarded.

IV. REVIEW PROCEDURES AND CRITERIA

A. Review Method

The applications will be evaluated on a competitive basis. The primary review, which will be arranged by the Division of Extramural Affairs, NHLBI, will be by a group of predominantly non-Federal consultants with appropriate scientific expertise. Secondary review will be by the National Heart, Lung, and Blood Advisory Council no later than September 1982.

B. Review Criteria

Applications must be responsive to this RFA in that they must be relevant to the goals of this RFA. In addition, the following factors will be considered:

- scientific merit of the research design, approaches, and methodology;

- o methods of analysis;
- o adequacy of existing and proposed facilities and resources;
- o research experience and competence of the staff to conduct the proposed investigations;
- o adequacy of time (effort) to be devoted to the project by the investigators and the technical staff;
- o availability of patients, where relevant;
- o evidence of institutional commitment to the program;
- o cost reasonableness of the program; and
- o willingness to cooperate and coordinate with other investigators.

V. METHODS OF APPLYING

A. Letter of Intent

Prospective applicants are asked to submit a brief one-page letter of intent, which should include a very short synopsis of proposed areas of research and identification of any other participating institutions. This letter should be received no later than March 1, 1982, at the following address:

Dr. Charles L. Turbyfill
Westwood Building, Room 553
National Institutes of Health
Bethesda, Maryland 20205

The Institute requests such letters only to provide an indication of the number and scope of applications to be received. A letter of intent is not binding; it will not enter into the review of any proposal subsequently submitted nor is it a requirement for application.

B. Format for Application

Applications must be submitted on Form PHS-398, the application form for the traditional research grant. Application kits are available at most institutional business offices or from the Division of Research Grants, NIH. The format and detail suitable for regular research grant applications should be used, with care taken to satisfy the points listed under Review Criteria. Grantees will be expected to meet periodically and share results with other participants in the program and with the National Heart, Lung, and Blood Institute.

C. Application Procedure

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

Division of Research Grants
Westwood Building, Room 248
National Institutes of Health
Bethesda, Maryland 20205

Eighteen copies of the completed application should be sent or delivered to Dr. Charles L. Turbyfill whose address appears in section V.A. of this RFA.

Applications must be received by June 1, 1982.

Label the outside of the mailing package and the top of the face page "Response to RFA, NIH-NHLBI-DBDR-82G-I."

A very brief covering letter must accompany the application indicating that it is submitted in response to this RFA, NIH-NHLBI-DBDR-82G-I: "USE OF PERFLUOROCHEMICALS IN BASIC AND APPLIED RESEARCH." A carbon copy of this covering letter should be sent to Dr. George J. Nemo at the address below.

Schedule Summary:

Letter of Intent..... March 1, 1982
Deadline for Receipt of Applications.....June 1, 1982
Award.....September 30, 1982

VI. INQUIRIES

Inquiries may be directed to:

Dr. George J. Nemo
Federal Building, Room 5C04
National Institutes of Health
Bethesda, Maryland 20205

Telephone Number: (301) 496-1537

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATIONS (RFA)

CANCER CONTROL RESEARCH UNITS FOR DEFINED POPULATIONS

NATIONAL CANCER INSTITUTE

APPLICATION RECEIPT DATE: July 15, 1982
LETTER OF INTENT; MARCH 31, 1982

The National Cancer Institute (NCI) announces the availability of a Request for Applications (RFA) inviting proposals for the establishment of Cancer Control Research Units For Defined Populations.

The RFA will be available on or before January 31, 1982. Letters of intent will be required and will be due not later than March 31, 1982.

The Division of Resources, Centers and Community Activities (DRCCA) of NCI has developed a "Statement on Cancer Control (January 1981) which sets forth the general scope and definition of cancer control research. Briefly,

> "The goal of a cancer control program is to reduce cancer incidence, morbidity, and/or mortality by: 1) identifying approaches that might accomplish this and performing research in defined populations to determine which are effective, 2) selective promotion and evaluation of these approaches, and 3) selective education and information dissemination for health professionals and/or the public. The scope of cancer control includes prevention, screening, diagnosis, pretreatment evaluation, treatment, rehabilitation, and continuing care activities."

The purpose of this RFA is to encourage the development of Cancer Control Research Units (CCRU) for Defined Populations. Grants under this RFA will support a limited number of geographically dispersed CCRUs which will be designed to plan and implement cancer control research for defined populations and to serve as a resource for the cancer control research program of the National Cancer Program. At present, no comparable research units exist which are devoted to cancer control research of this kind.

The CCRU is designed to provide support for: a core group of researchers who have access to defined population(s) for cancer control research; several research projects which are judged to be meritorious in the peer review process; developmental funds for pilot projects which hold promise of being recommended for funding through the peer review process; and other resources, such as data support, which can be justified as necessary to achieve the goals of the CCRU.

This program is described in the Catalog of Federal Domestic Assistance No. 13.399, Cancer Control. Awards will be made under the authority of the Public Health Service Act, Title IV, Section 403 (Public Law 78-410, as amended; 42 USC 284) and administered under PHS grant policies and Federal regulations 42 CFR Part 52 and 45 CFR Part 74. This progam is not subject to A-95 Clearinghouse or Health Systems Agency review.

A defined population is a population which is characterized in terms of: numbers and methods of identifying individuals in the population; demographic characteristics such as age, sex, color, ethnic group; social and economic factors such as occupation, education, socioeconomic status; vital statistics such as incidence, morbidity, and/or mortality; personal or life style factors such as diet or smoking; genetic and/or biological characteristics or other factors associated with disease. For this RFA, there must be methods for identifying the population denominators and the occurrence of cancer within the population. The population may be defined either geographically, or by exposure, or by characteristics proven to have a statistical association with cancer.

The DRCCA, NCI, intends to support these CCRUs as grants for project periods of up to five years. It is anticipated that a maximum of approximately five awards will be made as a result of this request. Adjustments in the level of funding may be made annually. Renewal of the initial award beyond five years will be contingent upon satisfactory review of a competing renewal application by a peer review committee and availability of funds.

An RFA will be available on or before January 31, 1982 which outlines in greater detail the proposed study, the eligibility for application, the letter of intent procedure, and the review procedures and criteria. A letter of intent and discussions with Program staff will be required before a grant application can be submitted. An institution wishing to participate in this effort must submit an application in accordance with the guidelines specified in the RFA.

Additional information and copies of the RFA may be obtained from:

Carlos E. Caban, Ph.D.
Program Director
Cancer Centers Branch
Division of Resources, Centers and
Community Activities
National Cancer Institute
Blair Building, Room 716B
8300 Colesville Road
Silver Spring, Maryland 20910

Telephone: (301) 427-8663

STATEMENT ON CANCER CONTROL

DIVISION OF RESOURCES, CENTERS AND COMMUNITY ACTIVITIES
January 1981

The goal of a cancer control program is to reduce cancer incidence, morbidity, and/or mortality by: 1) identifying approaches that might accomplish this and performing research in defined populations to determine which are effective, 2) selective promotion and evaluation of these approaches, and 3) selective education and information dissemination for health professionals and/or the public. The scope of cancer control includes prevention, screening, diagnosis, pretreatment evaluation, treatment, rehabilitation and continuing care activities.

The national cancer effort includes both research into and application of control methods. These are complimentary and not antagonistic activities and are part of an ordered sequence, as indicated in the following statement from the report of the President's Biomedical Research Panel:*

> "The continuum from the discovery of new knowledge to the application of such knowledge in health care includes a number of steps:
>
> 1. discovery, through research, of new knowledge and the relating of new knowledge to the existing base;
>
> 2. translation of new knowledge, through applied research, into new technology and strategy for movement of discovery into health care;
>
> 3. validation of new technology through clinical trials; (through clinical trials in defined populations, and in other ways);**
>
> 4. determination of the safety and efficacy of new technology for widespread dissemination through demonstration projects;
>
> 5. education of the professional community in proper use of the new technology and of the lay community on the nature of these developments; and
>
> 6. skillful and balanced application of the new developments to the populations."

Cancer control includes 2 through 5 although different relative emphasis may be placed on each of those points depending on the specific cancer and whether prevention or treatment efforts are involved. Control and research must be mutually reinforcing and only the coordinated planning and implementation of research and control strategies will assure maximum yield from the dollars invested, maximum quality of the activities supported, and maximum probability that the research effort will continue to provide advances suitable for future application in the control of cancer.

Cancer control should support three types of activities in defined populations:

1. research to determine whether and to what extent, actions proposed for a particular cancer are effective;

2. research to determine the optimal strategies for promoting actions proven efficacious for particular cancers; and

3. selective implementation of those promotional strategies proven efficacious for particular cancers.

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* Report of the President's Biomedical Research Panel. Submitted to the President and the Congress of the United States. April 30, 1976. U.S. Department of HEW, Public Health Service, DHEW Pub. No. (05)76-500.

** Words in parentheses added by Subcommittee on Cancer Control, Board of Scientific Counselors, DRCCA, NCI, January 20, 1981.

Cancer control efforts should give priority to cancers meeting one or both of the following criteria: 1) cancers causing the greatest mortality/morbidity in the United States; 2) cancers for which apparently effective actions are available. Highest priority should be given to cancers meeting both criteria.

Current "optimal" techniques for preventing or treating cancer must be considered as imperfect and as in a constant state of evolution. Despite this fact, great benefit could be derived if the entire population had access to current "optimal" techniques. One aspect of cancer control is, therefore, to determine, by expert consensus, the currently acceptable standard of management for all aspects of the health care continuum for particular cancers. Discrepancies between this baseline standard of management (BSM) and the actual management practiced in particular communities can be ascertained and appropriate steps taken to achieve the baseline. Attempts to do this must, however, be predicated on the understanding that the baseline is dynamic and that today's standard is tomorrow's outmoded technology.

In the portion of the continuum concerned with diagnosis and treatment, the baselines standard of management may be represented by well designed clinical research protocols. One aspect of cancer control will, therefore, be the establishment of mechanisms that make it possible for community physicians to place patients on protocol studies, thus facilitating the implementation of current baseline standards of management.

In the portion of the continuum concerned with cancer prevention, it will be necessary to develop an understanding of human health behavior and to support research to identify strategies that effectively promote good health behaviors or effectively modify inappropriate health behaviors.

Another aspect of cancer control will be continuing assessment of the quality of important services and technologies, such as laboratory and x-ray. Standards for the quality of such services should be established as a part of the baseline standard of management and efforts made to ensure compliance with such standards through education of health professionals and the general public. These baseline standards are also in a state of evolution and will require revisions consistent with the advance of knowledge.

Social action for cancer control is another major channel that should be pursued. It includes such steps as reduction of occupational exposures to carcinogenic agents, a linking of institutional and community health agencies in the interest of cancer control, social and physical rehabilitation and supportive care of cancer patients, and the establishment of hospice programs for patients with terminal cancer.

The development of an effective national program for cancer control requires qualified personnel, particularly with training and experience in the disciplines of epidemiology, biostatistics, and disease control administration, and the placement of these individuals in responsible positions.

ANNOUNCEMENT

RESEARCH RELATED TO GENETIC SUSCEPTIBILITY TO HUMAN BREAST CANCER

NATIONAL CANCER INSTITUTE

The Breast Cancer Program of the National Cancer Institute encompasses the totality of problems related to the etiology, epidemiology, diagnosis, treatment, and prevention of breast cancer. This program has a special interest in stimulating investigator-initiated research grant applications (R01's) for investigations of genetic susceptibility to human breast cancer.

I. BACKGROUND INFORMATION

The clustering of breast cancer in families is a well-known phenomenon, and recent studies have indicated that in some families the disease appears to be segregating as a Mendelian trait, suggesting that one or more human genes are responsible for the susceptibility. Particular program interest in this area addresses such questions as: (1) what proportion of human breast cancers, female and male, may be accounted for or strongly influenced by susceptibility gene(s); (2) how many forms of genetic susceptibility exist and how common is each of these forms; (3) can the use of new genetic markers, including DNA polymorphisms, help to resolve these issues; (4) which, if any, environmental or cultural risk factors interact with genetic susceptibility; (5) how is genetic susceptibility expressed at physiological or biochemical metabolic levels; (6) how is genetic susceptibility expressed at the chromosomal or DNA level; (7) can new approaches in cloning, transfection, and/or somatic cell hybrids help to elucidate the molecular biology of genetic susceptibility; (8) does the natural history of genetically influenced breast cancer resemble that of non-familial breast cancer; (9) is increased familial risk reflected in breast cancer mortality risk; and (10) related questions about genetic aspects of human breast cancer.

II. MECHANISM OF SUPPORT

The mechanism of support will be the traditional research grant. Policies that govern research grant programs of the National Institutes of Health will prevail. The award of grants pursuant to this request for grant applications is contingent upon receipt of proposals of high scientific merit and the availability of appropriated funds.

This program is described in the Catalog of Federal Domestic Assistance No. 13.396, Cancer Biology. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 78-410, as amended; 42 USC 241) and administered under PHS grant policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to A-95 Clearinghouse or Health Systems Agency review.

III. METHODS AND CRITERIA OF REVIEW

A. Assignment of Applications. Applications will be received by the Division of Research Grants (DRG), National Institutes of Health. DRG will refer the proposals to the appropriate Study Section for Scientific review, and will assign them to the National Cancer Institute for possible funding and management. 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 in accordance with the usual NIH peer review procedures (Study Section). The review criteria customarily employed by the NIH for research grant applications will prevail. Factors considered in the scientific merit evaluation of each application will include an assessment of the importance of the proposed research problem, the novelty and originality of approach, the training, experience and research competence of the investigator(s), the adequacy of experimental design, the suitability of the facilities, and the appropriateness of the requested budget relative to the work proposed. Following Study Section review, the application will be evaluated for program relevance by staff members of the Breast Cancer Program, NCI. Funding decisions will be based upon relative scientific merit, program relevance, and the Institute's ability to fund.

C. Deadlines. Applications will be accepted in accordance with the usual dates for new applications on an indefinite basis:

March 1 July 1 November 1

IV. METHOD OF APPLYING

Applications should be submitted on form PHS-398, which is available in the business or grants office at most academic or research institutions, or from the Division of Research Grants, NIH.

The phrase "PREPARED IN RESPONSE TO NCI ANNOUNCEMENT ON GENETIC SUSCEPTIBILITY TO HUMAN BREAST CANCER" should be typed across the top of the first page of the application. The original and six copies should be sent or delivered to:

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

In order to alert the Breat Cancer Program to the submission of proposals as requested above, copies of the face page and summary page of such applications should be forwarded under separate cover to:

Dr. Elizabeth P. Anderson
Chief, Epidemiology Projects Section
Breast Cancer Program Coordinating Branch
National Cancer Institute
Landow Building - Room 8C-17A
Bethesda, Maryland 20205

ANNOUNCEMENT

AREAS OF RESEARCH CONSIDERED PERIPHERAL TO THE NIEHS

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

This announcement will provide information to current grantees and prospective applicants for NIEHS funding regarding research areas no longer considered relevant to the programs of the Institute. While support has been provided in the past for a limited number of programs in the areas of research specified, new programs and competing renewals will not be considered for funding by the NIEHS. Ongoing projects will continue to receive support for the approved project period subject to budget negotiation and providing funds are available.

The NIEHS does not have responsibility for the following: (1) biological control of insects through the use of infectious agents or insect biochemistry; (2) studies on specific venoms or toxins which do not provide information and new knowledge of a universal nature regarding basic toxicological mechanisms and concepts; (3) research on natural or disturbed ecosystems; (4) studies dealing solely with environmental degradation or biotransformation of environmental pollutants, or the fate of contaminants and pollutants, including the origin, dispersion and disposition of noxious agents in the environment; (5) waterborne diseases of marine and freshwater fauna; and (6) projects representing purely chemical, physical or biological investigations not directly related to human environmental health problems.

Information regarding the programs and interests of the NIEHS may be obtained by contacting the Office of the Associate Director, Extramural Programs, NIEHS, P.O. Box 12233, Research Triangle Park, North Carolina 27709, Telephone (919) 541-7723, or Program Directors for specific programs at the address above:

Dr. Robert G. Owens Telephone (919) 541-7825	-	Special Programs
Dr. Edward Gardner, Jr. Telephone (919) 541-7724	-	Regular Research Grants
Dr. Christopher Schonwalder Telephone (919) 541-7634	-	Research Manpower Development

FUNDING NOTICE

CLARIFICATION

The "funding notice" printed in the January 1 issue of the Guide (Vol. 11, No. 1, p. 42) described NIH funding plans under the third Continuing Resolution, through March 31, 1982. The funding strategy outlined in that notice will apply to awards with February 1 and March 1 start dates as well as the January 1 awards specifically mentioned.

The third sentence of the second paragraph referred to spending levels under the previous Continuing Resolution when in fact those levels were based on the President's revised 1982 budget figures submitted to Congress in September, 1981. The sentence should have read as follows:

> "Partial restoration of reductions in previous FY 1982 awards - based on Administration funding policy during the period covered by the second Continuing Resolution - will be made to bring them to comparable levels."

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