

# NIH GUIDE

**For Grants  
and  
Contracts**

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**U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES**

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The NIH Guide announces scientific initiatives and provides policy and administrative information to individuals and organizations who need to be kept informed of opportunities, requirements, and changes in extramural programs administered by the National Institutes of Health.

**Vol. 18, No. 25  
July 21, 1989**

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NOTICES

NIH REGIONAL WORKSHOPS ON IMPLEMENTATION OF THE PHS POLICY ON  
HUMANE CARE AND USE OF LABORATORY ANIMALS ..... 1  
National Institutes of Health  
Index: NATIONAL INSTITUTES OF HEALTH

DATED ANNOUNCEMENTS (RFPs AND RFAs)

EXPIRED BREATH ANALYSIS IN CHEMICAL TOXICITY ASSESSMENT (RFP) ..... 1  
National Institute of Environmental Health Sciences  
Index: ENVIRONMENTAL HEALTH SCIENCES

DATABASES FOR PHYSICAL MAPPING DATA (RFA) ..... 2  
Office of Human Genome Research  
Index: HUMAN GENOME

HUMAN GENOME PROGRAM INSTRUMENTATION SUPPLEMENTS (RFA) ..... 3  
Office of Human Genome Research  
Index: HUMAN GENOME

ONGOING PROGRAM ANNOUNCEMENTS

NATIONAL RESEARCH SERVICE AWARDS IN GENOMIC ANALYSIS ..... 5  
Office of Human Genome Research  
Index: HUMAN GENOME

HUMAN GENOME PROGRAM CENTER GRANTS (P30) ..... 7  
Office of Human Genome Research  
Index: HUMAN GENOME

## NOTICES

### NIH REGIONAL WORKSHOPS ON IMPLEMENTATION OF THE PHS POLICY ON HUMANE CARE AND USE OF LABORATORY ANIMALS

P.T. 42; K.W. 0201011, 1014003

National Institutes of Health

The National Institutes of Health, Office for Protection from Research Risks, is continuing to sponsor a series of workshops in implementing the Public Health Service Policy on the Humane Care and Use of Laboratory Animals. The workshops are open to institutional administrators, members of animal care and use committees, laboratory animal veterinarians, investigators and other institutional staff who have responsibility for high-quality management of sound institutional animal care and use programs.

Date: October 24-25, 1989

Location: Columbus, Ohio

Contact: Dr. Mary Ellen Sheridan  
Ohio State University  
208 Bricker Hall  
190 North Oval Mall  
Columbus, Ohio 43210-1321  
Telephone: (614) 292-6776

Date: December 7-8, 1989

Location: Honolulu, Hawaii

Contact: Ms. Liane Nakmura or  
Ms. Becky Makizuru  
University of Hawaii  
Laboratory Animal Service  
2538 The Mall - Snyder Hall 5th Floor  
Honolulu, Hawaii 96822  
Telephone: (808) 948-8770

### DATED ANNOUNCEMENTS (RFPs AND RFAs)

#### EXPIRED BREATH ANALYSIS IN CHEMICAL TOXICITY ASSESSMENT

RFP AVAILABLE: NIH-ES-89-23

P.T. 34; K.W. 1003008, 1007009

National Institute of Environmental Health Sciences

The objective of the project is to evaluate possible applications of expired breath analysis in laboratory animals as part of an overall toxicologic assessment following chemical administration. The project will consist of two phases. Phase One consists of the identification of volatile components consistently appearing in the breath of the Fischer 344 rat. This Phase includes the following tasks: (1) identifying the advantages and disadvantages of the generation of breath samples via pass-through and rebreathing configurations; (2) determining the optimal methodology for collection and recovery of polar compounds; and (3) identifying and evaluating the consistency of breath components in the F344 rat. Phase Two consists of the characterization of changes in breath components with chemical administration, focusing on chemicals which have produced pathologic changes in prechronic studies, and for which data are available from two-year exposure studies.

This is an announcement of an anticipated Request for Proposals.

RFP NIH-ES-89-23 will be issued on or about July 24, 1989, with a closing date for receipt of proposals of September 21, 1989. The Institute expects to award one contract.

Requests should reference RFP NIH-ES-89-23 and should be forwarded to:

National Institute of Environmental Health Sciences  
Contracts and Procurement Management Office, OM  
ATTN: Susan D. Kinney, Contract Specialist  
P.O. Box 12874  
79 T.W. Alexander Drive  
4401 Building, Research Commons  
Research Triangle Park, North Carolina 27709

#### DATABASES FOR PHYSICAL MAPPING DATA

RFA AVAILABLE: 89-HG-02

P.T. 34; K.W. 1215018, 0755045, 1004017, 1004008

Office of Human Genome Research

Application Receipt Date: November 15, 1989

#### BACKGROUND

The National Institutes of Health, in coordination with several other federal, private, and international organizations, is currently engaged in a research program designed to characterize the human genome, as well as the genomes of selected model organisms. The aim of the program is to produce a set of research tools, comprising both materials and information, that will be used to study basic biological phenomena, the genetic aspects of human disease, and to develop methods of diagnosing, treating, and preventing such disease. These resources will be stored in, and distributed from, public repositories. No publicly available databases that contain physical mapping data (long-range restriction maps; ordered, overlapping clone sets; etc.) exist yet. The goal of this Request for Applications (RFA) is to stimulate active research in the development of physical mapping databases.

#### RESEARCH SCOPE

The Office of Human Genome Research (OHGR) invites applications for research grants to develop databases for the collection, storage, retrieval, and distribution of data for physical mapping of the human genome or the genomes of model organisms. Applications should be for the establishment of databases for physical mapping data in conjunction with actual physical mapping projects. Approaches that involve the development of small databases, which can serve as models for the later development of more extensive public resources, are encouraged. In this regard, databases limited to individual chromosomes (human or model organism) or chromosome arms, or complete genomes of model organisms, are responsive to this RFA.

At the current very early stage of the Human Genome Program, physical maps of individual human chromosomes and the genomes of particular model organisms are being constructed in many laboratories in a widely distributed manner. Thus, this component of the genome program will involve interactions among a significant number of individual laboratories. Investigators are encouraged to address, in their applications, the issue of facilitating data exchange among those laboratories that have a common interest in a particular chromosome or genome. Collaborative efforts to develop a single database for a given chromosome or specific genome are specifically encouraged.

#### MECHANISM OF SUPPORT

Support for this program will be through research grants, including individual project grants (R01) and program project (P01) grants. Applications submitted by collaborating investigators from more than one institution are encouraged and can be supported by consortium arrangements. Policies that govern research grant programs of the NIH apply to this program.

The total amount of support for grants under this RFA is contingent upon the appropriation of funds for this purpose. The number of awards will be determined by the merit of the proposals and by their relevance to program goals, as well as by the availability of funds. It is anticipated that up to six awards will be made. This number may be increased if a large number of highly meritorious applications are received and if funds are available.

## METHOD OF APPLYING

Applicants should request the complete RFA and obtain additional information from:

Dr. Mark Guyer  
Office of Human Genome Research  
Shannon Building, Room 203  
National Institutes of Health  
9000 Rockville Pike  
Bethesda, Maryland 20892  
Telephone: (301) 496-0844

Applications should be submitted on the new Form PHS 398 (rev. 10/88). The RFA label available in the revised application kit must be affixed to the bottom of the application 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. Application kits are available in most institutional business offices or from the Office of Grants Inquiries, Division of Research Grants, Westwood Building, Room 449, National Institutes of Health, Bethesda, Maryland 20892.

Applications will be processed in accordance with the following schedule:

Receipt date:	November 15, 1989
IRG review date:	February - March 1990
Council review:	May 1990
Earliest funding date:	July 1, 1990

It is essential that applicants type "DATABASES FOR PHYSICAL MAPPING" and the RFA number 89-HG-02 in item 2 on the face page of the application form. The original and six copies of the application should be submitted to the following office:

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

Funding decisions will be based on the recommendations of the initial review group and the appropriate second-level review group regarding scientific merit and program relevance.

It is strongly recommended, but not required, that potential applicants contact OHGR staff to discuss research objectives. For more information, applicants may contact:

Dr. Mark Guyer at the address shown above.

## HUMAN GENOME PROGRAM INSTRUMENTATION SUPPLEMENTS

RFA AVAILABLE: 89-HG-01

P.T. 34; K.W. 1215018, 0735000, 1014006

Office of Human Genome Research

Application Receipt Date: October 11, 1989

The Office of Human Genome Research announces the availability of funds for the purchase of equipment in order to expedite research related to the goals of the Human Genome Program of the National Institutes of Health.

## BACKGROUND

The National Institutes of Health (NIH) is currently engaged, as are several other federal, private, and international organizations, in a research program designed to characterize the human genome and the genomes of selected model organisms. This research program has the following interrelated goals: the construction of high resolution genetic linkage maps; the development of a variety of physical maps; the determination of the complete nucleotide sequence of the DNA of selected organisms; the development of the capability for collecting, storing, distributing, and analyzing the data produced; and the development of appropriate new technologies to achieve these goals. This project will develop a series of resources that will be available to the

research community to facilitate both basic research and the application of the knowledge gained to the prevention, diagnosis, and therapy of disease.

The Human Genome Program at NIH is now in its second year. In the first year, 63 grants for genome research were awarded, and this year approximately 40 additional grants will be awarded. There are also numerous other NIH grants, awarded prior to the beginning of the genome initiative, that support work directed at the goals of the genome program. It is estimated that many of the research efforts supported by these grants are operating with significant needs for new equipment, either because existing equipment is obsolete, or because required new equipment is unavailable. This situation slows the progress of the research supported by these grants and progress on the genome initiative as a whole.

The Office of Human Genome Research has therefore decided to solicit applications for supplementary funds for the purchase of equipment. This equipment program applies to all NIH research grants (R01, R29 and P01) that are pursuing the goals of the genome project. Any equipment that will be used in such research may be requested, including general purpose laboratory equipment.

#### OBJECTIVES AND SCOPE OF THE PROGRAM

The objective of the equipment supplements will be to expedite genome research through provision of needed new or replacement equipment. Emphasis will be put on low- to medium-priced equipment rather than high-priced, highly specialized equipment. The latter type of equipment is already available through other NIH programs, i.e., under the Shared Instrumentation Program of the Division of Research Resources, while the smaller equipment is often difficult to obtain through the regular grant channels.

Any piece of equipment that can be shown to be used for genome research may be requested, providing its cost does not exceed \$100,000. The cost of the equipment and the cost of installing it will be allowed, but not the cost of service agreements or any other future year costs.

There is no limit to the number of items of equipment that can be requested in any one supplement, but the aggregate cost of the equipment requested on any one grant must not exceed \$100,000.

This equipment initiative is for fiscal year 1990 only. Investigators submitting applications to the genome program for payment in fiscal year 1990 or beyond should include requests for all necessary equipment in their competing applications.

#### ELIGIBILITY

Anyone holding an NIH research grant (R01, R29, P01) that is supporting research directed at the goals of the genome program may apply for supplementary equipment funds, provided that the grant has at least one year of funding left at the time of award.

Genome research is defined as research aimed at producing complete genetic, physical, or DNA sequence maps of the genomes of the human and of a number of model organisms, with special emphasis on *E. coli*, *S. cerevisiae*, *D. melanogaster*, *C. elegans* and *M. musculus*. Research directed at developing new or improved technology to accomplish these aims is also included. However, projects directed at analysis of individual genes for particular biological functions or specific diseases or at developing diagnosis, prevention or therapy for such diseases are the province of other programs at NIH and are not included in the genome program unless the main objective is the development of new technology applicable to the goals of the genome program.

Applicants who are not currently supported through the earmarked genome program funds managed by the National Institute of General Medical Sciences, should check with the individual listed below to ascertain whether their research fits the definition of genome research.

#### METHOD OF APPLYING

For application instructions and a copy of the Request for Applications document, please contact:

Dr. Bettie Graham  
Office of Human Genome Research  
Shannon Building, Room 210  
National Institutes of Health  
Bethesda, Maryland 20892  
Telephone: (301) 496-0844

### ONGOING PROGRAM ANNOUNCEMENTS

#### NATIONAL RESEARCH SERVICE AWARDS IN GENOMIC ANALYSIS

P.T. 22, 44; K.W. 0720005, 1215018

Office of Human Genome Research

Application Receipt Dates: January 10, May 10, September 10

The Office of Human Genome Research (OHGR) announces a new set of research training programs that are intended to foster the development of highly qualified scientists who are: (1) able to integrate mathematical, physical, chemical, engineering, and/or computer-based methods with those of molecular biology and genetics; and (2) able to use those interdisciplinary skills to develop research programs in the mapping and determination of the DNA sequence of the human genome and the genomes of other organisms, as well as in the analysis and application of the resulting data. This research training will be supported through predoctoral institutional training grants (T32), individual postdoctoral fellowships (F32), and senior fellowships (F33).

#### BACKGROUND

The National Institutes of Health is currently engaged, along with several other federal, private, and international organizations, in a research program designed to characterize the human genome and the genomes of selected model organisms. This endeavor, known as the Human Genome Initiative, has several interrelated goals: the construction of a high resolution genetic linkage map of the human; the development of physical maps of the human genome and the genomes of selected model organisms; the determination of the complete nucleotide sequence of human DNA and the DNA of several model organisms; the development of the ability to collect, store, distribute, and analyze the data that accrues from these activities; and the development of appropriate new technologies to achieve these goals.

The aim of the genome program is to produce a set of research resources, including information, materials, methodologies and instruments. It is expected that these resources will significantly improve the ability of scientists to study basic biological phenomena, to determine the genetic aspects of human disease, and to develop methods of diagnosing and treating such disease.

To achieve the goals of the genome program, there are many biological and technological research problems that need to be solved. Attaining the solutions to these problems will require that the research methods of the biological sciences be augmented and complemented by the approaches and methods of sciences such as physics, mathematics, computer science, chemistry, and engineering. However, it is widely perceived that there is a critical shortage of scientists with the appropriate skills to bring such multidisciplinary approaches to the necessary research. The intent of the new research training program in genomic analysis is to develop and support institutional programs that provide research training which emphasizes the importance of joint application of one or more of these other sciences with biological approaches, in investigation of those areas of biomedical research relevant to the broad field of genomic analysis.

#### INSTITUTIONAL NATIONAL RESEARCH SERVICE AWARDS - PREDOCTORAL RESEARCH TRAINING

The goal of PREDOCTORAL RESEARCH TRAINING in genome research is to develop scientists with the skills to carry out independent research programs that: (1) address the basic and applied issues which will arise in the process of attaining the goals of the Human Genome Initiative, and (2) seek to use the information developed as a result of the Human Genome Program to solve important biomedical research problems. Genome training grants should be designed to provide an interdisciplinary training program, in which students are prepared with a deep understanding of how the methods and principles of one or more nonbiological sciences can interact with those of biology to allow investigation of research problems related to genomic analysis. Such programs should be capable of attracting students with different backgrounds and should



have sufficient flexibility to provide the appropriate training to individual candidates. For example, for individuals whose undergraduate background was not in the biological sciences, genome-related training should include special course-work to provide a working background in biological sciences prior to beginning laboratory research. Conversely, by including faculty who provide strength in fields such as chemistry, computer science, etc., individuals who enter with a background in the biological sciences should be provided with opportunities for training in the broader areas that will allow them to become scientists able to address the needs of genome research.

Although the immediate objectives of the genome training program are framed in terms of addressing the goals of the Human Genome Initiative, such training should also have broader goals. The most successful programs will be those that train skilled scientists able to develop independent research programs that will not only be useful in attaining the goals of the Human Genome Initiative, but will then be able to utilize the resources developed through that program to address important biological research questions. Thus, it is essential that the students who are supported under this program receive thorough training in modern biomedical research. The interdisciplinary training envisioned in the predoctoral component of this initiative must follow fundamentally sound undergraduate preparation in biology, computer science, applied mathematics, chemistry, physics, or engineering. In other words, the new training program in genome research is designed to allow trainees access to broad research opportunities across disciplinary and departmental lines, while not sacrificing the standards of depth and creativity characteristic of the best Ph.D. and postdoctoral programs of individual departments. One way to achieve the desired breadth would be cooperative involvement of faculty members from several departments as research mentors.

The stipend level for PREDOCTORAL trainees is \$8,500 per annum. In addition, the applicant institution may request up to \$1,500 per year for each predoctoral trainee to use for essential direct support costs to the training program. Tuition support for each trainee may be requested in accordance with amounts charged to other graduate students. Indirect costs will be paid at 8 percent of total allowable direct costs, or actual costs, whichever is less.

Institutional training grants are made for project periods of up to 5 years and are renewable. However, no single predoctoral trainee may receive more than 5 years of support unless a specific waiver is obtained.

Applications will be evaluated for merit by a special study section constituted by the OHGR for the purpose of reviewing training grant applications. The following criteria will be considered: the proposed research training objectives and program design; the qualifications and commitment of participating faculty, including previous training record that includes those from minority groups underrepresented in the biomedical/behavioral sciences; the ability to attract high caliber trainees; the availability of research support; the extent of the institutional commitment; and the available facilities. Following assessment of the quality of the proposed training and assignment of priority scores indicative of the merit, the initial review group will comment on each applicant's plans for attracting individuals from underrepresented minority groups and in training them for research careers.

Site visits may be conducted as part of the review process. However, applicants should present a complete and well-justified written proposal and not depend on site visits to amplify their applications.

Subsequent to OHGR study section review, applications will be reviewed by a National Advisory Council. Among the information the Council will consider is the initial review group's comments on the recruitment of individuals from underrepresented minority groups into the training program.

#### INDIVIDUAL NATIONAL RESEARCH SERVICE AWARDS

POSTDOCTORAL FELLOWSHIPS in genome research are intended to provide interdisciplinary training at the post-graduate level. Individuals trained in mathematics, computer science, chemistry, physics, or engineering, who desire to augment their skills in those fields with training in biological science with the goal of pursuing genome research would be appropriate candidates for such support. Conversely, biologists who wish to acquire research training in biocomputation, instrumentation, biophysics or other areas related to genome research would also be appropriate candidates for individual postdoctoral fellowships in genome analysis.

The stipend level for the individual postdoctoral fellowships ranges from \$17,000 to \$31,500, depending on the number of years of relevant experience



subsequent to the award of the doctoral degree. In addition, the training institution may request an institutional allowance of up to \$3,000 per year for supplies, equipment, travel, tuition, fees, insurance, and other training-related expenses. Individual postdoctoral fellowships are made for project periods of up to 3 years.

SENIOR FELLOWSHIPS are be available for experienced investigators in the biological, computer, mathematical, physical, engineering, or chemical sciences who wish to acquire experience/training in new areas. It is expected that senior fellows will subsequently use this training to develop and broaden their research programs to include projects related to genome analysis. This program is envisioned as one way in which to allow a scientist from outside biology to acquire the biological expertise necessary to allow him or her to become involved in, and contribute to, the genome project. This mechanism can also be used by a biologist to acquire experience in some non-biological field that will broaden the scope of her or his research program.

The stipend level currently is \$30,000 per annum for project periods of up to two years. The institution at which the training will take place may request an institutional allowance up to \$3,000 per year for support of supplies, equipment, travel, tuition, fees, insurance, and other training-related costs.

Additional details about the policies, payback provisions and review procedures governing the institutional predoctoral training grant, the postdoctoral fellowship, the senior fellowship and can be found in the National Research Service Awards Guidelines, published in the NIH Guide for Grants and Contract, Vol. 13, No.1, January 6, 1984.

Application material is available from the university business office or from the Office of Grants Inquiries, Division of Research Grants, National Institutes of Health, Westwood Building, Room 449, Bethesda, Maryland 20892.

Receipt dates for applications for all awards described in this announcement are January 10, May 10, and September 10, annually.

#### PUBLIC BRIEFING ON THE NATIONAL RESEARCH SERVICE AWARDS IN GENOMIC ANALYSIS

Applicants are encouraged to discuss the proposed applications with the OHGR staff prior to submission. In addition, the Office of Human Genome Research will host a meeting with prospective training grant applicants on September 25, 1989, in Wilson Hall, Building, 1, on the NIH campus from 10:00 a.m. to 4:00 p.m. For further information, please contact:

Dr. Mark Guyer  
Office of Human Genome Research  
Shannon Building, Room 203  
National Institutes of Health  
9000 Rockville Pike  
Bethesda, Maryland 20892  
Telephone: (301) 496-0844

#### HUMAN GENOME PROGRAM CENTER GRANTS (P30)

P.T. 34; K.W. 1215018, 0710030, 1002058, 0755045, 1004017, 0780000

Office of Human Genome Research

First receipt date: February 1, 1990

#### BACKGROUND

The National Institutes of Health (NIH) is currently engaged, as are several other federal, private, and international organizations, in a research program designed to characterize the human genome and the genomes of selected model organisms. This research program has been named the Human Genome Initiative and will result in better understanding of genetic diseases. The Human Genome Initiative has the following interrelated goals: the construction of high resolution genetic linkage maps, the development of a variety of physical maps, the determination of the complete nucleotide sequence of the DNA of selected organisms, and the development of appropriate new technologies to achieve these goals. This project will create a series of resources that will be available to the research community to facilitate both research and the application of the knowledge gained to the prevention, diagnosis, and therapy of disease.

The nature and organization of the research required to achieve the goals of the program is, in part, different from that previously encountered in basic

biological research. Many of the research projects envisioned will be large undertakings that can only be addressed adequately by groups of investigators representing diverse disciplines working together cooperatively. Such groups will need shared resources to allow their projects to go forward efficiently. In addition, coordination will be necessary to collect, organize, share, and interpret the massive amounts of information that will be generated by such projects.

Thus the National Institutes of Health proposes, as part of the Human Genome Program, to establish Human Genome Program Centers (HGP Centers). It is envisioned that a substantial fraction of the funds earmarked for the genome program will eventually be devoted to the support of such centers, with the award of as many as 20 center grants over a period of years.

The type of center grant that will be supported is the core center grant [P30]. This mechanism is designed to support the infrastructure for genome research at institutions engaged in significant amounts of genome research. The core center grant can be combined with any and all other funding mechanisms to establish a comprehensive, varied, and integrated program of genome research. For example, an HGP Center might consist of a core center grant, one or more program projects, an assortment of regular research grants, a training grant, and some contracts. The center grant itself will provide the cohesive fabric and will undergird the other awards. The center grant also provides flexible funds that can help the group of investigators to capitalize on emerging opportunities. The Principal Investigator of the center grant will be expected to provide administrative and intellectual leadership to the entire HGP Center effort.

This kind of structure provides for flexibility as well as stability. While individual components can come and go, shrink or grow with the demands of the science, continuity to the overall program is provided by the center grant.

#### OBJECTIVES AND SCOPE OF HGP CENTERS

The goal of the Human Genome Research Centers will be to develop the new technology needed to accomplish the aims of the human genome program and to apply the technology available to large-scale generation of mapping and sequencing information. In addition, the Centers will support research on the basic biology of genomes in order to increase understanding of mapping and sequencing information and facilitate application of the knowledge to human disease. Each Center will be expected to choose a thematic focus around which to organize.

The specific objectives of HGP center grants will be to:

1. Encourage a group of investigators to collaborate in addressing a major specific research objective in a comprehensive and coordinated way. Examples of such objectives might be to: prepare a complete physical map of a human chromosome, sequence a bacterial chromosome, prepare a one-centimorgan map of the human genome, develop a completely automated process for DNA sequencing, and so on;
2. Stimulate interdisciplinary collaboration and sharing of data and ideas;
3. Promote the rapid generation and dissemination of materials and data. Sharing of the products of research within and without the center will be an essential element of the center's activities.
4. Expedite research by provision of needed core resources;
5. Recruit new investigators into the field, including engineers, mathematicians, computer specialists, and physical scientists;
6. Provide an environment where large-scale projects can be accommodated and receive stable support;
7. Provide a focus for collaboration with investigators who are not part of the Center and with private sector organizations. For example, collaboration with a strong medical genetics group would be highly desirable for a center engaged in human genome mapping and sequencing, so that application of research findings to the study of genetic diseases can be facilitated;
8. Provide for collaboration or service to outside investigators who are working on related projects and to investigators who need techniques or resources not otherwise available. For example, Centers may generate large numbers of DNA probes or cell lines that would be beneficial to the community at large. It is envisioned that Centers would become the focus of networks of collaborating scientists located all over the United States and indeed across

the world. Ideally, any investigator working on the genome project should have the ability to engage in collaboration with a related Center.

#### ELIGIBILITY

1. The group of investigators applying for HGP Center grants must have significant ongoing research programs in genome research sufficient in magnitude and diversity to justify the support of a core grant.
2. Domestic academic, nonprofit, or for-profit institutions are eligible.

While a single institution must be the applicant, multi-institutional arrangements (consortia) are possible if there is a compelling reason for them and if there is clear evidence of close interactions.

Collaboration with industry is encouraged. It is desirable that this collaboration be such that the industrial contribution is well integrated into the design and operation of the center so as to encourage cross-fertilization of ideas and rapid application of the research to practical purposes.

#### ALLOWABLE COMPONENTS OF HGP CENTER GRANT APPLICATIONS

##### 1. Administrative core

This component may include the costs of administering the research center, including salaries of the principal investigator and other key individuals for the time devoted to center administration. Costs of advisory committees, steering committees, and consultants should be included here also.

Salary support for the principal investigators of grants that will be part of the HGP Center may be requested to the extent such salary is not recovered on the individual research grant(s). The limit is 50 percent of the salary of the principal investigator involved. Only the percent of time and effort devoted to the specific research project included in the center may be claimed.

##### 2. Core Facilities

Under this component the applicant should request such shared facilities or equipment as are appropriate to the research program proposed. Examples of shared facilities might be:

- o polynucleotide or protein sequencing laboratory
- o cytogenetics laboratory
- o shared equipment
- o data management and computational resource
- o instrument development laboratory

This list of core facilities is not intended to be limiting. Applicants should examine their needs and propose core facilities best suited to fill these needs. It is expected that there will be considerable diversity between centers. Resources necessary for distribution of data or materials to noncenter investigators should be taken into account, where relevant, in proposing the funding of core facilities.

##### 3. Alteration and Renovation

Costs needed for renovation of existing space may be requested if such space is needed to house core facilities or to expand research activities of existing investigators or investigators to be recruited to enhance the center program. Detailed justification and plans for use of the space must be provided. Costs of equipping renovated laboratories should be included in this component.

##### 4. Developmental Funds

This component may include:

- o cost of recruitment of new investigators;
- o support of new investigators for up to three years until independent support is obtained;

- o support for innovative pilot projects not supported under existing funding;
- o funds for the development of new resources or core facilities.

#### OTHER FEATURES OF HGP CENTER GRANTS

HGP Center grants will have project period of five years. Review of any request for renewal of support for another five-year period will take place after three years. In the event that the review is not favorable, this early review will allow sufficient time for submission and review of a revised application or for orderly phase-out of the grant.

While the center grant will support core facilities and administration, investigators are expected to continue to obtain other funding (e.g., R01, P01) to support specific research projects associated with the center. The proportion of funding in the center grant as opposed to other mechanisms of support is not fixed and will depend on the nature of the center. However, investigators are expected to maintain a strong research program, consistent with the goals of the overall center, throughout the life of the center grant.

#### REVIEW PROCEDURES

The first receipt date for applications will be February 1, 1990. Thereafter, the regular receipt dates for new center grant applications will pertain: June 1, October 1, and February 1 of each year. In order to be considered for funding in Fiscal Year 1990 (before September 30, 1990), applications must be received by February 1, 1990.

Applications will be reviewed by a special study section constituted by the OHGR for the purpose of reviewing Human Genome Program center grant applications. Site visits may be conducted as part of the review process. However, applicants should present a complete and well-justified written proposal and not depend on site visits to amplify their applications. Subsequent to OHGR study section review, applications will be reviewed by a National Advisory Council.

#### METHOD OF APPLYING

Applicants should use Standard Form PHS 398 (rev. 10/88), available from most institutional business offices or from the Office of Grants Inquiries, Division of Research Grants, National Institutes of Health, Westwood Building, Room 449, Bethesda, Maryland 20892; telephone (301) 496-7441.

In order to assure proper identification of the application, line 2 of the application form should state "Human Genome Program Research Centers."

Applicants are strongly urged to consult with the individual listed below prior to preparing an application. This individual will provide guidance on the acceptability of the proposed center grant structure and additional instructions on the proper format for the application.

#### PUBLIC BRIEFING ON THE GENOME CENTER GRANT PROGRAM

Prospective applicants are invited to attend a briefing on this new program on September 11, 1989, in Building 31, Conference Room 10 on the NIH campus from 10 a.m. to 4 p.m. Genome Program staff will explain the purpose of the program, provide detailed instructions on the application format, and answer questions. Applicant institutions are urged to send a representative to this briefing.

Additional information is available from:

Dr. Jane Peterson  
Office of Human Genome Research  
Shannon Building, Room 201  
National Institutes of Health  
Bethesda, Maryland 20892  
Telephone: (301) 496-0844