
**U.S. Department of Health and Human Services**

**National Institutes of Health and**
**Agency for Healthcare Research and Quality**

# Ruth L. Kirschstein National Research Service Award Individual Fellowship Application (PHS 416-1)

Instructions for PHS 416-1
Rev. 09/2008

Form Approved Through 09/30/2011
OMB No. 0925-0002

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# PART I

# Instructions

# 1. Foreword

The PHS 416-1 instructions contain information for preparing Fellowship applications to the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ).

Applicants to PHS agencies other than NIH should contact the agency using the PHS Agency Contacts Table in 1.5 below because some awarding components have application requirements that differ from those for NIH.

NIH continues to transition grant mechanisms to the SF424 (R&R) and electronic submission through Grants.gov. This PHS 416-1 is required for use until the Fellowship mechanisms are transitioned to the SF424 (R&R). Once the Fellowship mechanisms have transitioned to electronic submission the applicant must apply through Grants.gov using the SF424 (R&R) and electronic PHS Fellowship Supplemental components that will be provided as part of the electronic application forms.

For more information on NIH's transition plans, including a timeline for the transition of various mechanisms, see the website for Electronic Submission of Grant Applications: http://era.nih.gov/ElectronicReceipt/.

Bookmark this website http://grants.nih.gov/grants/funding/416/phs416.htm for easy electronic access to this document.

**Summary of Changes**

These instructions include numerous clarifications and updates. The following table is a summary of policy changes and notifications implemented since the 10/2005 revision of the PHS 416-1 application.

| TITLE | NIH GUIDE LINK |
|---|---|
| NIH Announces Plans to Eliminate Mailing of Paper Assignment and Change of Assignment Letters | NOTICE: NOT-OD-06-066 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-066.html |
| Revision: Notice of New NIH Policy for Funding of Tuition, Fees, and Health Insurance on Ruth L. Kirschstein National Research Service Awards | NOTICE: NOT-OD-06-093 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-093.html |
| Change in Standing Receipt Dates for NIH/AHRQ/NIOSH Beginning in January 2007 | NOTICE: NOT-OD-07-001 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-001.html |
| Guidance to Applicant Organizations about Registering Research Fellows in the eRA Commons | NOTICE: NOT-OD-07-003 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-003.html |

| TITLE | NIH GUIDE LINK |
|---|---|
| New Limits on Appendix Materials for All NIH/AHRQ/NIOSH Grant Applications Beginning with Receipt Dates on or After January 3, 2007 | NOTICE-OD-07-018 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-018.html |
| Change in Standing Receipt Dates for AIDS and AIDS-related applications for NIH/AHRQ Beginning in May 2007 | NOTICE OD-07-053 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-053.html |
| Revision: Ruth L. Kirschstein National Research Service Award (NRSA) Stipend and Other Budgetary Levels Effective for Fiscal Year 2007 | NOTICE OD-07-057 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-057.html |
| Revision: Streamlined Review Process to be used for Ruth L. Kirschstein National Research Service Awards (NRSA) Postdoctoral Fellowship Applications (F32) | NOTICE OD-07-085 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-085.html |
| Policy for Sharing of Data Obtained in NIH Supported or Conducted Genome-Wide Association Studies (GWAS) | NOTICE OD-07-088 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-088.html |
| Implementation Guidance and Instructions for Applicants: Policy for Sharing of Data Obtained in NIH-Supported or Conducted Genome-Wide Association Studies (GWAS) | NOTICE OD-08-013 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-013.html |
| Clinical Trials Registration in ClincialTrials.gov (Public Law 110-85): Competing Applications and Non-Competing Progress Reports | NOTICE OD-08-023 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-023.html |
| NIH Policy on Late Submission of Grant Applications | NOTICE OD-08-027 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-027.html |
| Notice Regarding the Applicability of the Federal Information Security Management Act to NIH Grantees | NOTICE OD-08-032 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-032.html |
| NIH Renews Focus on Protecting Sensitive Data and Information Used in Research | NOTICE OD-08-066 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-066.html |
| Extension of Several NRSA Training (T), NRSA Fellowship (F), and Career Development (K) Funding Opportunity Announcements | NOTICE OD-08-069 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-069.html |
| NIH Implements New Procedures to Protect NIH Application Data Sent to Peer Reviewers on Compact Disks | NOTICE OD-08-071 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-071.html |

| TITLE | NIH GUIDE LINK |
|---|---|
| NIH/AHRQ Set Transition from PureEdge to Adobe Application Forms for December 2008 and Plan Subsequent Transition of Remaining Mechanisms to Electronic Submission | NOTICE OD-08-073 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-073.html |
| Clarification of NIH Policy on Late Submission of Grant Applications | NOTICE OD-08-111 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-111.html |
| New NIH Policy on Resubmission (Amended) Applications | NOTICE OD-09-003 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-003.html |

**Changes to instructions are highlighted as follows:**

Implementation of Grants.Gov Terminology

- As part of the ongoing effort to keep the PHS 416-1, 398 and the SF424 (R&R) synchronized, new terminology is implemented throughout this document. For reference, the following table is provided:

| OLD TERM | NEW TERM |
|---|---|
| Competing continuation application | Renewal application |
| Revision or amendment [to application] | Resubmission application |
| Competing supplement | Revision application |
| Training site | Project/performance site -<br><br>For fellowships this is also known as the Training Site. |
| Duly authorized representative | Authorized Organizational Representative –<br><br>For fellowships this is the representative of the Sponsoring Institution. |

Structure of Document

- Instructions are reorganized for greater consistency with the SF424 (R&R) and PHS 398 Component Instructions used for electronic submission. A numerical reference system is incorporated in order to more closely parallel the SF424 (R&R) instructions.

- Part II is revised for purposes of clarity and ease of reference, and the definitions related to human subjects research are moved to Part III.

Suggested Cover Letter Format

- A suggested cover letter format is provided for greater consistency and to facilitate the use of requests for specific institutes or Centers (ICs) or Scientific Review Groups.

Indefinite Plans for Involvement of Human Subjects or Use of Vertebrate Animals

- Instructions for the Research Training Plan sections addressing human subjects and vertebrate animals are modified to provide clearer guidance to applicants when plans are indefinite at the time of application.

Appendix Format

- Incorporates the new NIH policy requiring appendix material to be submitted only on CDs in PDF format, and no longer on paper. See NIH Guide Notice NOT-OD-08-031.

Part II, Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan

- All six human subjects exemptions are provided in one scenario (Scenario C).

- A new scenario for "Delayed Onset of Human Subjects Research" is incorporated.

Select Agent Research

- The requirements of the Research Training Plan have been revised to include a new section dedicated specifically to Select Agent Research. This new section is only required when applicable.

**Changes to specific form and format pages are noted below:**

416-1 Face Page

- 4k. Citizenship data fields updated to include check boxes for: Permanent Resident of U.S. *Pending*; and Non-U.S. Citizenship with temporary U.S. Visa. Note the additions to the Citizenship section are to allow broader use of these forms for individual Fellowship programs outside of the Ruth L. Kirschstein National Research Service Award (NRSA) authority. There are no changes in NRSA policy regarding citizenship requirements.

- 9b. Human Subjects Assurance has been changed to Federalwide Assurance.

- 10a. IACUC approval date deleted since information is collected only as a Just-in-Time submission.

Signatures

- Implements a change in business process by replacing the Applicant (Fellow) and Sponsor Signatures on the Face Page with a Sponsoring Institution assurance (see companion NIH Guide Notice NOT-OD-09-007). This change in business process removes these signatures from the Face Page. The only required signature on the Face Page is that of the Official signing for the Sponsoring Institution (see Part III, Section 2.14 for signature requirements for Fellowships).

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- Updated to collect specific information for each Training (Project/Performance) Site; added DUNS and Congressional District fields for each Training (Project/Performance) Site. This structured data requirement is necessary to comply with the Federal Financial Accountability and Transparency Act of 2006.

Checklist Form Page

- Deleted Section II for the Sponsoring Institution. Assurances/Certifications are listed in Part I of the 416-1.

**Important Reminders for all Applicants**

Font and margin specifications must be followed; if not, application processing may be delayed or the application may be returned to the applicant without review. NIH requires the use of one of four approved fonts and a font size of 11 points or larger. The approved font options include two serif fonts (Palatino and Georgia) and two sans serif fonts (Arial and Helvetica). A symbol font may be used to insert Greek letters or special characters; the font size requirement still applies. A smaller font size may be used for figures, graphs, diagrams, charts, tables, figure legends, and footnotes, but this type must follow the font typeface requirement and be readily legible.

Prepare a *succinct* Research Training Plan. There is no requirement for applicants to use the maximum allowable pages allotted to the Research Training Plan (Sections 2-5). The remaining sections of the Research Training Plan have no maximum allowable pages, but should also be succinct.

Several elements of an application are not required at the time the application is submitted. This information is requested later in the review cycle (i.e., just-in-time) to ensure that it is current. See Just-In-Time Policy in Part III. 1.5.

## 1.1 Application Guide Format

This edition of the PHS 416-1 is organized into three parts, and is available in two different formats: MS Word and PDF. Within each Part are links to pertinent sections of the application, other documents, or NIH web pages. To use these links in the MS Word version effectively, you must enable the "web" tool bar in order to have a “back button” to return to a page after using a link. The three parts of the 416-1 are described below:

**Part I: Instructions for Preparing and Submitting an Application**

Part I includes instructions on submitting a grant application, completing the PHS 416-1 forms and format pages, submission and review of your application,

**Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan**

Part II of the PHS 416-1 is to be used if your proposed research will involve human subjects. These instructions assist you in determining whether human subjects are involved and include six possible scenarios and detailed instructions to assist you in completing Item 8 of the Research Training Plan (Human Subjects Research).

**Part III: Policies, Assurances, Definitions and Other Information**

Part III of the PHS 416-1 includes information on policies, assurances, definitions, and other information relating to submission of applications to the PHS. Applicants should refer to this as well as the PHS 416-1 instructional materials, Grants Information (GrantsInfo), and *Grants Policy Statement* sections for additional sources of information.

THESE INSTRUCTIONS AND APPLICATION FORMS (revised 09/2008) SUPERSEDE ALL PREVIOUS EDITIONS. Carefully read the instructions. Submission of an application that fails to meet the PHS requirements will be grounds for the PHS to delay the review or to return the application without peer review. A properly prepared application will facilitate the administrative processing and peer review that must occur before an award can be made.

While the instructions are generally applicable, many fellowship programs have additional specific instructions. Applicants should contact an official listed in the table to obtain the most current information and instructions.

Bookmark this website **http://grants.nih.gov/grants/forms.htm** for easy electronic access to the forms and instructions.

## 1.2 NIH and AHRQ Extramural Research and Research Training Programs

The NIH Office of Extramural Research Grants homepage (http://grants.nih.gov/grants/oer.htm) provides an array of helpful information. Applicants are encouraged to bookmark this site and visit it often.

Information about the NIH extramural research and research training programs, funding opportunities, and the grant application process, can be obtained by emailing your request to: GrantsInfo@nih.gov or by calling (301) 435-0714, TTY (301) 451-5936.

Guidelines for Kirschstein-NRSA Individual Fellowships and non-NRSA may be found on the NIH Web Site at http://grants.nih.gov/training/nrsa.htm. Guidelines for the AHRQ fellowships may be found on the AHRQ Web Site at http://www.ahrq.gov/fund/hhspolicy.htm.

## 1.3 Fellowship Mechanisms and Program Guidelines

The Kirschstein-NRSA program helps ensure that a diverse pool of highly trained scientists is available in adequate numbers and in appropriate research areas to carry out the Nation's biomedical and behavioral research agenda. Kirschstein-NRSA fellowships are awarded as a result of national competition for research training in specified health-related areas. Certain specialized individual fellowships, such as the predoctoral fellowships (F31 and F30), postdoctoral fellowships (F32), Senior Fellowships (F33), and other institute-specific fellowship programs are provided under this authority. For individual predoctoral fellowships, NIH Institutes and Centers (ICs) have differing requirements. All NIH ICs except Fogarty International Center (FIC) and National Library of Medicine (NLM) award Kirschstein-NRSA fellowships. FIC and NLM have unique funding authorities for fellowships that are not under the Kirschstein-NRSA authority.

This Application Guide contains information for preparing applications for Individual Fellowships available from the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ). These fellowships are available at the predoctoral, postdoctoral, and senior

fellowship levels. These include both Ruth L. Kirschstein National Research Service Award (NRSA) and non-NRSA programs. It is important to note that not all predoctoral, postdoctoral, and senior fellowships are supported by each IC and AHRQ. Therefore, individuals interested in this type of award are strongly encouraged to consult with the appropriate NIH IC and AHRQ before submitting an application. (For example, Postdoctoral (F32) fellowships are provided by the NIH ICs and AHRQ. AHRQ does not provide senior fellowships.) *This action is of utmost importance because applications with marginal or no relevance to the mission of the participating ICs or AHRQ will not be accepted for review or funding.* Thus, specific FOAs always should be consulted for guidance.

Contact information can be found in each Funding Opportunity Announcement (FOA) published as a program announcement or request for applications and below in the Interactions with PHS Staff section.

For more information, see the NIH Research Training and Career Development website at http://grants.nih.gov/training/extramural.htm and the AHRQ Research Training website at http://www.ahrq.gov/fund/training/rsrchtng.htm.

A partial list of research training and career development award grant mechanisms is provided below. As noted in the descriptions in Part III: Policies, Assurances, Definitions, and Other Information, not all awarding components use all programs. For a complete listing of program guidelines, visit the OER Grants website http://grants.nih.gov/grants/funding/funding_program.htm.

**Kirschstein-NRSA Programs:**

Individual Ruth L. Kirschstein National Research Service Award Fellowships (NRSA) (F30, F31, F32, F33, F34, etc.)

**Other Individual Fellowship (non-NRSA) Programs:**

Information for other non-NRSA Fellowship programs can be found at http://grants.nih.gov/training/extramural.htm

## 1.4 Interactions with PHS Staff

NIH and AHRQ encourage applicants to communicate with staff throughout the entire application, review and award process. Web site addresses and staff phone numbers of NIH and AHRQ contacts are listed below. A list of contacts specifically for extramural training at the NIH ICs can also be found at: http://grants.nih.gov/training/ tac_training_contacts.doc. Individuals are encouraged to always check this website for the most current contact information.

All inquiries regarding the assignment, review, or recommendation on funding of applications are to be made only to PHS officials.

**PHS Agency Contacts**

| PHS AGENCY (LINK TO WEB SITE) | AWARDING COMPONENT (LINK TO WEB SITE) | TELEPHONE NUMBER |
|---|---|---|
| NATIONAL INSTITUTES OF HEALTH (NIH) | *Eunice Kennedy Shriver* National Institute of Child Health and Human Development | 301-496-0104 |
| NIH | Fogarty International Center | 301-496-1653 |

| PHS AGENCY (LINK TO WEB SITE) | AWARDING COMPONENT (LINK TO WEB SITE) | TELEPHONE NUMBER |
|---|---|---|
| NIH | National Cancer Institute | 301-496-3428 |
| NIH | National Center for Complementary and Alternative Medicine | 301-496-4792 |
| NIH | National Center on Minority Health and Health Disparities | 301-402-1366 |
| NIH | National Center for Research Resources | 301-496-6023 |
| NIH | National Eye Institute | 301-451-2020 |
| NIH | National Heart, Lung, and Blood Institute | 301-435-0260 |
| NIH | National Human Genome Research Institute | 301-496-7531 |
| NIH | National Institute on Aging | 301-496-9322 |
| NIH | National Institute on Alcohol Abuse and Alcoholism | 301-443-4375 |
| NIH | National Institute of Allergy and Infectious Diseases | 301-496-7291 |
| NIH | National Institute of Arthritis and Musculoskeletal and Skin Diseases | 301-594-2463 |
| NIH | National Institute of Biomedical Imaging and Bioengineering | 301-451-4792 |
| NIH | National Institute on Deafness and Other Communication Disorders | 301-496-1804 |
| NIH | National Institute of Dental and Craniofacial Research | 301-594-4800 |
| NIH | National Institute of Diabetes and Digestive and Kidney Diseases | 301-594-8834 |
| NIH | National Institute on Drug Abuse | 301-443-2755 |
| NIH | National Institute of Environmental Health Sciences | 919-541-7723 |
| NIH | National Institute of General Medical Sciences | 301-594-4499 |
| NIH | National Institute of Mental Health | 301-443-3367 |
| NIH | National Institute of Neurological Disorders and Stroke | 301-496-4188 |
| NIH | National Institute of Nursing Research | 301-594-6906 |
| NIH | National Library of Medicine | 301-496-4621 |
| NIH | Center For Scientific Review | 301-435-0715 TTY 301-451-5936 |
| NIH | Study Section Information | 301-435-1115 |
| AGENCY FOR HEALTHCARE RESEARCH AND QUALITY | Agency for Healthcare Research and Quality | 301-427-1447 |

**Before Submission**

You may wish to contact NIH or AHRQ staff with a variety of questions before submitting an application. Each FOA includes names of staff members.

Contact GrantsInfo and/or the Division of Receipt and Referral, Center for Scientific Review (CSR), NIH:

- To identify Institutes/Centers (ICs) at NIH or other non-NIH agencies and/or a Scientific Review Group (SRG) that might be appropriate for your application. Note requests for assignment to an Institute/Center and/or SRG may be made in a cover letter at the time of application submission.
- To learn about grant mechanisms.
- To receive advice on preparing and submitting an application (e.g., format, structure).

Contact program staff in the relevant awarding component:

- To determine whether your proposed application topic would fit into the NIH IC's or AHRQ's programmatic area.
- To learn about programmatic areas of interest to the IC or AHRQ.
- To find out about requesting an assignment to an IC.
- To discuss whether you should respond to an RFA.
- To receive scientific guidance on preparing and submitting an application
- To discuss appropriate fellowship level, particularly predoctoral and senior fellowships

Contact Scientific Review Officers in the CSR to discuss requesting assignment to a SRG.

**After Submission**

If the initial assignment to an IC or SRG seems inappropriate, the Applicant Fellow (to be designated as the Project Director/Principal Investigator, or PD/PI) may request reassignment. Such requests should be made in writing to:

Division of Receipt and Referral
Center for Scientific Review
National Institutes of Health
6701 Rockledge Drive, Suite 2030, MSC 7720
Bethesda, MD 20892-7720
Fax requests (301-480-1987) are also acceptable

Although these requests will be carefully considered, the final determination will be made by the PHS agency.

**Applicants must never contact reviewers regarding their applications because discussion of the scientific content of an application or an attempt to influence review outcome will constitute a conflict of interest in the review process. Reviewers are required to notify the Scientific Review Officer if they are contacted by an applicant. Communication by the**

**applicant to a reviewer may delay the review or result in the return of the application without review.**

**After Assignment**

Contact your Scientific Review Officer to discuss the review assignment, to request permission to send additional/corrective materials, and/or to discuss any review concerns (e.g., expertise needed on your study section, conflicts, reviewers that may have bias).

**After Peer Review**

Feedback to applicants is very important. Once the PD/PI reviews the Summary Statement in the eRA Commons, the appropriate awarding component program official (noted on the Summary Statement) may be contacted:

- To discuss the review outcome of the application and obtain guidance
- To get feedback and answers to any questions about the Summary Statement
- To find out the meaning of a numerical designation pertaining to human subjects or vertebrate animals on the Summary Statement
- To find out the funding status of an application

A paper copy of the Peer Review Outcome Letter and Summary Statement will not be mailed to the Applicant Fellow and may only be accessed through the eRA Commons.

## 1.5 Grants Policy Statements

The *NIH Grants Policy Statement* serves as a term and condition of NIH grant awards and is a compilation of the salient features of policies and various policy issues regarding the administration of NIH awards.

AHRQ uses the *HHS Grants Policy Statement* in administering its grant awards. It serves as a term and condition of award and is a compilation of the salient features of policies and various policy issues regarding the administration of PHS awards, excluding NIH awards.

## 1.6 Quick References

**Applicants New to NIH: Getting Started**
grants.nih.gov/grants/useful_links.htm

**Award Data**
**(CRISP, extramural research grants, award trends, training and career awards)**
grants.nih.gov/grants/award/award.htm

**Contact Information for an AHRQ Staff Person**
training@ahrq.hhs.gov
**Technical Assistance:** Telephone: (301) 427-1349

**Contact Information for an NIH Staff Person**

directory.nih.gov
**NIH locator:** Telephone: (301) 496-4000

Grants Information
**grants.nih.gov/grants/giwelcome.htm**
E-mail: GrantsInfo@nih.gov
Telephone: (301) 435-0714
TTY: (301) 451-5936

**Grant Writing Tips and Frequently Asked Questions**

http://grants.nih.gov/grants/planning_application.htm
http://grants.nih.gov/grants/writing_application.htm
http://grants.nih.gov/training/faq_fellowships.htm

**eRA Commons**

Institutions are invited to register with the eRA Commons and to register individuals. Registered Applicants/Fellows can check assignment/contact information, review outcome, and other important information. Note this is the only way Applicants/Fellows can now access information on review and Institute assignments, review outcomes, and summary statements. This information is no longer mailed to the Applicants/Fellows.

**https://commons.era.nih.gov/commons/index.jsp**. At this time the eRA Commons is available to NIH grantees only. Plans are underway to incorporate data for other DHHS agencies.

**NIH Office of Extramural Research Human Subjects Website**

This site provides, in one place, DHHS and NIH requirements and resources for the extramural community involved in human subjects research
**http://grants.nih.gov/grants/policy/hs/index.htm**

**Office for Human Research Protections**

(Human Subject Protections, Institutional Review Boards, or related assurances)
**http://www.hhs.gov/ohrp**
Telephone: 1-866-447-4777 or (301) 496-7005

**Office of Laboratory Animal Welfare (OLAW)**

(Animal Welfare and related regulations and assurances) **grants.nih.gov/grants/olaw/olaw.htm**
Telephone: (301) 496-7163

**Receipt/Referral of an Application**

Division of Receipt and Referral
Center for Scientific Review
**http://cms.csr.nih.gov/ResourcesforApplicants/Submission+And+Assignment+Process.htm**
Telephone: (301) 435-0715

TTY: (301) 451-5936
Fax: (301) 480-1987

**Specific Application: Before Review**

Telephone or e-mail the Scientific Review Officer named on the electronically-generated "notification of assignment" that is available in the eRA Commons. **In order to avoid delays in the e-notification process, it is vital that all Individual Fellows are registered in the eRA Commons and e-mail addresses are checked periodically for accuracy.**

**Specific Application: Post Review**

Telephone or e-mail the NIH or AHRQ Program Official named on the summary statement of your application which can be viewed in the eRA Commons.

## 1.7 Authorization

NIH and AHRQ request the information described in these instructions pursuant to the statutory authorities contained in Section 487 of the PHS Act, as amended (42 USC 288). Therefore, such information must be submitted if an application is to receive due consideration for an award. Lack of sufficient information may hinder the ability to review an application and to monitor the awardee's performance.

The statutory authorities for the Fellowship programs are contained in the following:

F30, F31, F32, F33 Authority: Sections 301(a) and 487 of the PHS Act, as amended (42 USC 241a and 42 USC 288), 42 CFR Part 66.

F05 Authority: Section 307, 42USC 2421 and 42 CFR Part 63a.

F37 Authority: Section 472, 42 USC 286B-3 and 42 CFR Part 61.

AHRQ Authority: Section 487,Sections 304, 902, and 935 of the PHS Act, 42 USC 242b, 299, and 299c-4 and 42 CFR 67, Subpart A.

## 1.8 Paperwork Burden

NIH, which maintains this application form and instructions, estimates that it will take approximately 20 hours to complete. This estimate does not include time for development of the research training plan. Items such as human subjects and vertebrate animals have separate clearances and are not included in this estimate. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. If you have comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, send comments to: NIH Project Clearance Office, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0002). *Do not send applications to this address*.

# 2. General Instructions

## 2.1 Introduction

Read all of the instructions thoroughly before preparing your application.

Use this application to apply for new and competing continuation (renewal) Kirschstein-NRSA Individual Fellowships from NIH or AHRQ. Applications for these Individual Fellowships will not be accepted on other forms.

Further details on policies governing the Kirschstein-NRSA program are available on the NIH web site at http://grants.nih.gov/training/nrsa.htm, by contacting GrantsInfo@nih.gov, or by calling (301) 435-0714, TTY (301) 451-5936.

Read and follow these instructions carefully to avoid delays, misunderstandings, and possible return of applications. Adherence to font and margin requirements is necessary for several reasons. No applicant should have an advantage over other applicants by providing more content in his/her application by using smaller, denser type. Small type sizes may also make it difficult for reviewers to read the application.

The NIH Center for Scientific Review (CSR), Division of Receipt and Referral has the responsibility to make the final determination of legibility and the authority to return applications. This decision is final and not subject to appeal. Inquiries should be directed to the:

*CSR, Division of Receipt and* Referral
*Phone: 301-435-0715; TTY 301-451-5936; Fax: 301- 480-1987*

## 2.2 Registration Processes

### 2.2.1 (Reserved)

### 2.2.2 DUNS Registration for Applicant Organization

A Data Universal Numbering System (DUNS) number is required for all applications (paper and electronic) and must be obtained by the organization prior to submission. For organizations that already have multiple DUNS numbers, one DUNS number should be selected by an authorized organizational representative and used consistently for all application submissions. The authorized organizational representative should be consulted to determine the appropriate number to use for applications.

The DUNS number is considered the Federally-recognized unique identifier and is used for reporting purposes, particular those associated with the *Federal Financial Assistance Transparency Act (FFATA) of 2006* (P.L. 109-282).

FFATA also includes a requirement for reporting on subaward information. Therefore accurate DUNS for each subaward/consortium organization must also be provided as part of the Project/Performance Site information.

Additional information on DUNS registration is found at:
http://fedgov.dnb.com/webform/displayHomePage.do.

A DUNS number is required for Central Contractor Registration (see 2.2.3. below).

## 2.2.3 Central Contractor Registration (CCR) for the Applicant Organization

Prior to submission of all applications (paper and electronic), applicant organizations are required to be registered in the Central Contractor Registration (CCR). Organizations must maintain the currency of the information in the registry and renew the registration annually. A DUNS number is required for CCR registration.

CCR is a government-wide registry for organizations doing business with the U.S. Government. The registry collects, validates, stores, and disseminates data in support of agency acquisition missions, including Federal agency contract and assistance awards. The CCR registry will be used by Federal agencies to validate the DUNS number provided as part of the application process. Validation of the DUNS number will be critical for agencies to comply with the requirements of the *Federal Financial Assistance Transparency Act (FFATA) of 2006* (P.L. 109-282).

Organizational information entered into the CCR must match that in the eRA Commons. Since CCR Registration can take several days to complete, the process should be started well in advance of a submission date to avoid potential delays. An authorized organizational representative should be consulted to determine if the organization has properly completed and maintained CCR registration. Additional information on CCR registration is found at: http://www.ccr.gov/.

## 2.2.4 eRA Commons Registration

The applicant organization and the PD/PI (i.e. Applicant Fellow) must also complete a **one-time** registration in the eRA Commons. Access to the Commons is vital for all steps in the process after application submission. An organization and PD/PI must be registered in the Commons before they can take advantage of retrieval of grant information. Institutional/organizational officials are responsible for registering the Fellow in the eRA Commons. Fellows should work with their AOR (also known as the Signing Official in the eRA Commons) to determine their institutional/organizational process for registration.

IMPORTANT: The eRA Commons registration process should be started at least **two (2) weeks** prior to the submission date. A valid PD/PI eRA Commons user name ID must be entered in item 4b of the Face Page.

### 2.2.4.1 Commons Registration for the Organization

Organizations may verify their current registration status by accessing the "List of Grantee Organizations Registered in eRA Commons" (http://era.nih.gov/userreports/ipf_com_org_list.cfm).

To register an Organization in the eRA Commons:

1. Open the eRA Commons homepage (https://commons.era.nih.gov/commons/).
2. Click Grantee Organization Registration (found in "About the Commons" links on the right side of the screen).
3. Follow the step-by-step instructions. Remember to fax in the registration signature page to eRA.

4. Click Submit. The organization is registered when the NIH confirms the information and sends an email notification of registered Signing Official (SO) account (userid/password).

This registration is independent of Grants.gov and may be done at any time.

Organizational data elements, such as Institutional Profile Number (IPF), Entity Identification Number (e.g., 5555555555A5) and DUNS Number must be accurately identified. **Note the DUNS number must be included in the Institutional Profile and must match the DUNS number on the application.**

Since eRA has not required a DUNS number during eRA Commons registration, there are many accounts that do not contain valid information in this field. Prior to submission, the AOR/SO should verify that their organization's eRA Commons profile contains the valid DUNS number that will be used for the submission process. The SO has the ability to edit this field in the organization profile in Commons.

To confirm that your organization has a DUNS number or to find out if the DUNS number you have matches the one in the Commons, access the List of Grantee Organizations Registered in eRA Commons (http://era.nih.gov/userreports/ipf_com_org_list.cfm). This listing of grantee organizations registered in Commons and their DUNS numbers can be accessed without logging into Commons.

#### 2.2.4.2 Commons Registration for the Applicant Fellow (designated as Project Director/Principal Investigator; or PD/PI)

The individual Fellow for whom support is being requested is to be designated as the PD/PI on the application, and must also be registered in the Commons. The PD/PI must hold a PI account **and** be affiliated with the applicant organization. **This registration must be done by an organizational official (or delegate) who is already registered in the Commons.** To register PDs/PIs in the Commons, refer to the eRA Commons System Users Guide (http://era.nih.gov/Docs/COM_UGV2630.pdf).

Once the PD/PI has received email confirming his/her registration within the Commons, the PD/PI must verify, review, and update as needed, all Personal Information located within the Personal Profile tab in the eRA Commons System. These data must contain the most recent information in order for the application to be processed accurately.

Both PD/PI and SO need separate accounts in Commons since both need to verify the application. If you are the SO for your organization as well as a PI of the grant, you will need two separate accounts with different user names – one with SO authority and one with PI authority. When an organization is registered, an SO account is created. Log on to the account with the SO authority role and create another account with PI authority.

It is important to note that if a PD/PI is also an NIH peer-reviewer with an Individual DUNS and CCR registration, that particular DUNS number and CCR registration are for the individual reviewer only. These are different than any DUNS number and CCR registration used by an applicant organization. Individual DUNS and CCR registration should be used only for the purposes of personal reimbursement and should not be used on any grant applications submitted to the Federal Government.

For additional information on how to prepare for electronic submission, see: http://era.nih.gov/ElectronicReceipt/preparing.htm.

**Guidance for Affiliating Individual Fellows in the eRA Commons**

In October 2006, NIH issued "Guidance to Applicant Organizations about Registering Research Fellows in the eRA Commons" (Notice Number: NOT-OD-07-003; see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-07-003.html). The purpose of this Notice is to remind applicant organizations that they should register in the eRA Commons any individual research fellows who are submitting applications to NIH and AHRQ. Many individuals who are submitting Individual Fellowship applications have the unique circumstance of actually submitting an application through a Sponsoring Organization that is different than their current organization. This is perfectly appropriate considering the nature of Individual Fellowship programs. However, this does pose a complexity with respect to eRA Commons registration. Many prospective individual fellows have already been registered in the eRA Commons by their current organization. However, to be able to view the records for an application submitted through a different organization, that individual must also be "affiliated" with the new sponsoring organization. Note a separate eRA Commons registration is NOT required. However, the proposed sponsoring organization must take steps to affiliate the prospective fellow.

This process assumes the Prospective Fellow has already been registered in the eRA Commons by another organization and assigned the PI Role. If a Prospective Fellow has not yet been registered in the eRA Commons, they should work with the appropriate officials within the sponsoring organization to be properly registered. When the sponsoring organization handles the initial eRA Commons registration, no further affiliation is required.

**To Affiliate a Prospective Fellow with a Different Sponsoring Organization:**

1) Prospective Fellow gives Commons user ID and email address to the administrator of the new sponsoring organization. (The email address must be the one that is contained in the Personal Profile for the Fellow.)
2) Administrator of the new sponsoring organization logs into the Commons. (The administrator can be the Signing Official, Administrative Official, or the Accounts Administrator.)
3) Administrator selects "Administration" tab and then "Accounts" tab.
4) Administrator selects "Create Affiliation" tab.
5) Administrator enters the Commons User ID and Email address into the appropriate fields and clicks "Submit."

Note: The account cannot have any other roles attached to it other than the PD/PI and IAR (Internet Assisted Review). For additional information on Creating Affiliations for Users in the eRA Commons, see: https://commons.era.nih.gov/commons-help/175.htm.

## 2.3 (Reserved)

## 2.4 Funding Opportunities

Grants for health-related research and research training projects or activities make up the largest category of funding provided by the NIH Institutes/Centers (ICs) and other non-NIH agencies. Most applications for support originate with individual investigators who develop proposed plans for research or research training within an area that is relevant to the NIH.

### 2.4.1 NIH Guide for Grants and Contracts

The *NIH Guide for Grants and Contracts*, a weekly electronic publication (http://grants.nih.gov/grants/guide), contains announcements about funding opportunities, such as Requests for Applications (RFAs) and Program Announcements (PAs) from the NIH and other PHS agencies. The *Guide* also contains vital information about policies and procedures. To subscribe to the *Guide*, visit http://grants.nih.gov/grants/guide/listserv.htm.

### 2.4.2 Funding Opportunities Announcements (FOAs)

An NIH IC or AHRQ may issue Funding Opportunity Announcements (FOAs) in the form of program announcements (PAs) or requests for applications (RFAs) soliciting Kirschstein-NRSA Individual Fellowship applications. The PA/RFAs are available from the sponsoring IC or AHRQ and are issued in the *NIH Guide for Grants and Contracts* (http://grants.nih.gov/grants/guide/index.html).

Before preparing an application, applicants should thoroughly review the pertinent PA/RFA, noting the research area(s), eligibility requirements, any program-specific instructions, application receipt date, award provisions, and service payback provisions.

Definitions are as follows:

***Program Announcement (PA)***: A formal statement about a new or ongoing extramural activity or mechanism. It may serve as a reminder of continuing interest in a research area, describe modification in an activity or mechanism, and/or invite applications for grant support. Most applications in response to PAs may be submitted to a standing submission date and are reviewed with all other applications received at that time.

***Request for Applications (RFA)***: A formal statement that *solicits* grant or cooperative agreement applications in a well-defined scientific area to accomplish specific program objectives. An RFA indicates the estimated amount of funds set aside for the competition, the estimated number of awards to be made, and the application *submission date*(s). Applications submitted in response to an RFA are usually reviewed by a Scientific Review Group (SRG) specially convened by the awarding component that issued the RFA.

Specific PAs and RFAs are published in the NIH Guide for Grants and Contracts (http://grants.nih.gov/grants/guide), the Federal Register (http://www.gpoaccess.gov/nara/ index.html), and Grants.gov "Find Grant Opportunities" (http://www.grants.gov/applicants/find_grant_opportunities.jsp). Read the RFA or PA carefully for special instructions. The instructions in the RFA or PA may differ from the general instructions, and they supersede the general instructions. Each RFA or PA published in the *NIH Guide for Grants and Contracts*, the *Federal Register*, Grants.gov, Find Grant Opportunities, or other public document contains contact information under *Inquiries* in addition to information specific to the RFA or PA.

Individual Fellowship RFAs and PAs are also located at http://grants.nih.gov/training/nrsa.htm.

## 2.5 (Reserved)

## 2.6 Format Specifications

| |
|---|
| Follow font and format specifications. Otherwise, application processing may be delayed, or the application may be returned to the applicant without review. |

**Font**

- Use an *Arial, Helvetica, Palatino Linotype or Georgia typeface, a black font color, and a font size of 11 points or larger*. A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.
- Type density, including characters and spaces, must be no more than 15 characters per inch.
- Type may be no more than six lines per inch.
- Use black ink that can be clearly copied.
- Print must be clear and legible.

**Paper Size and Page Margins**

- Use *standard size (8 ½" x 11")* sheets of paper.
- Use at least one-half inch margins (top, bottom, left, and right) for all pages, including continuation pages. No information should appear in the margins, including the Fellow's name and page numbers.

**Page Formatting**

- Since a number of reviewers will be reviewing applications as an electronic document and not a paper version, applicants are strongly encouraged to use only a standard, single-column format for the text. Avoid using a two-column format since it can cause difficulties when reviewing the document electronically.
- The application must be single-sided and single-spaced.
- Consecutively number pages throughout the application. Do not use suffixes (e.g., 5a, 5b).
- Do not include additional pages between the face page and page 2.
- Do not include unnumbered pages.

**Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes**

- A smaller type size is acceptable but it must be in black ink, readily legible, and follow the font typeface requirement.

**Photographs and Images**

- Do not include photographs or other materials that are not printed directly on the application page in the body of the application. Pictures or other materials that are glued or taped onto application pages are incompatible with the current duplication/scanning process.
- You may include black-and-white or color images in the two (2) submitted copies provided such images are printed directly on the application page and are critical to the content of the application.

**Copies**

- Send the original application (signed by authorized organizational official) and two exact, legible, single-sided photocopies.
- Do not use photo reduction.
- The application must contain only material that reproduces well when photocopied in black and white. Glossy photographs or other materials that cannot be photocopied must be submitted in the appendix. Note: Photographs may be included in the appendix; however, a photocopy of each must also be included within the page limitations of the Research Training Plan.

**Grantsmanship**

- Use English and avoid jargon.
- If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parentheses. The abbreviation may be used thereafter.

**Page Limitations and Content Requirements**

All applications for NIH or AHRQ funding must be self-contained within the specified page limitations (see table below).

Unless otherwise specified in an NIH or AHRQ PA or RFA, internet Web site addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites. Moreover, reviewers are cautioned that they should not directly access an Internet site as it could compromise their anonymity.

| SECTION | PAGE LIMIT | CONTENT |
|---|---|---|
| Research Proposal—Description<br>(Form Page 2, Item 17) | Limited to space provided on form | Succinct and accurate description of proposed work when separated from application |
| Applicant/Fellow Biographical Sketch | 4<br>(no limits on subsections) | See Instructions |
| Previous Research Experience (Form Page 5)<br><br>Doctoral Dissertation and Other Research Experience | 2 | See Instructions. |

| SECTION | PAGE LIMIT | CONTENT |
|---|---|---|
| Research Training Plan<br>Introduction<br>Sections 2-5 only<br>(Sections 6-21 are not included in the 10-page limit) | 1<br>10 | Required for Resubmission Applications only<br>Text plus all figures and tables |
| Sponsor/Co-Sponsor Biographical Sketch | 4 (per person) | May use Biographical Sketch in PHS 398 |

## 2.7 Resubmission Applications

For all original new (i.e. never submitted) Individual Fellowship applications intended for the April 2009 due dates and beyond, NIH will accept only a single amendment application (now known as a "Resubmission" application) and there is no time limit for the resubmission application. Any second resubmission will be administratively withdrawn and not accepted for review. A new application following two reviews is expected to be substantially different in content and scope with more significant differences than are normally encountered in a resubmission application. For original new applications submitted prior to April 2009, applicants are permitted two resubmissions. For these "grandfathered" applications, any second resubmission must be submitted no later than January 7, 2011 and NIH will not accept any second resubmissions after that date. See NIH Policy on Submission of a Revised/Resubmission (amended) Application in Part III.

NIH has established new policies for application resubmissions of certain categories. See Resubmission of Unpaid RFA Applications and Resubmission of Applications with a Changed Grant Activity Mechanism in Part III.

There are four requirements for a Resubmission application:

- The Summary Statement must be available in the eRA Commons (http://commons.era.nih.gov/commons/).
- The Fellow must make significant changes to the application.
- An Introduction of no more than one page must be included that summarizes the substantial additions, deletions and changes to the application. The Introduction must also include a response to the issues and criticism raised in the Summary Statement. The Introduction should be placed immediately before item 2 of the Research Training Plan.
- The substantial scientific changes must be marked in the text of the Research Training Plan by bracketing, indenting, or change of typography. Do not underline or shade the changes. Deleted sections should be described but not marked as deletions. If the changes are so extensive that essentially all of the text would be marked, explain this in the Introduction.

A resubmission application will be returned without review if it does not comply with all of these requirements.

Acceptance of a resubmission application will not automatically withdraw the prior version. As of February 2008, eRA keeps all versions (e.g., 01, A1) of a grant application active and provides an internal MAA ("Multiple Active Applications") flag for each application in an active cluster. The cluster allows applicants to identify quickly all versions of one application. If any version in a cluster is awarded, all other applications within the cluster will be automatically withdrawn without any additional action by applicants or staff.

***Reference Letters for Resubmission Application***. Applicants must resubmit three sealed reference letters with the application. See Reference Letter instructions for additional details.

## 2.8 Revision Applications

Revision applications (formerly called a competing supplement) are submitted to request support for a significant expansion of a project's scope or research protocol. Revision applications are not appropriate when the sole purpose is to restore awards to the full SRG-recommended level if they were administratively reduced by the funding agency. **Revision applications are generally not applicable to individual fellowships supported by NIH and AHRQ.**

### Administrative Supplements

An administrative supplement provides additional funding to meet increased costs that are within the scope of an approved application, but that were unforeseen when the new or competing Renewal application was submitted. If considering administrative supplemental funding, consult in advance with the designated Grants Management Officer and Program Official. It is important to submit a request before the grant expires. To be considered for an administrative supplement, submit a request in writing to the Institute/Center, **not** to the Division of Receipt and Referral, Center for Scientific Review. The request must be signed by the authorized Business Official and describe the need for additional funding and the categorical costs. In the letter, point out what will NOT be accomplished if such a request is denied. Administrative supplements are **not** submitted using the 416-1 Application.

## 2.9 Similar, Essentially Identical, or Identical Applications

Submissions of identical applications to one or more components of the PHS are not allowed, and the NIH will **not** accept similar grant applications with essentially the same research training focus from the same applicant organization. This includes derivative or multiple applications that propose to develop a single product, process or service that, with non-substantive modifications, can be applied to a variety of purposes. Likewise, identical or essentially identical grant applications submitted by different applicant organizations will not be accepted. Applicant organizations should ascertain and assure that the materials they are submitting on behalf of the Applicant Fellow are the original work of the Applicant Fellow and have not been used elsewhere in the preparation and submission of a similar grant application. Applications to the NIH are grouped by scientific discipline for review by individual Scientific Review Groups and not by disease or disease state. The reviewers can thus easily identify multiple grant applications for essentially the same project. In these cases, application processing may be delayed or the application(s) may be returned to the applicant without review.

## 2.10 (Reserved)

## 2.11 (Reserved)

## 2.12 (Reserved)

## 2.13 Submission of Supplementary or Corrective Information

Unless specifically required by these instructions (e.g., vertebrate animals verification), do not send supplementary or corrective material after the submission date unless the Scientific Review Officer of the Initial Review Group's study section solicits or agrees to accept this information.

## 2.14 Application Submission Dates

Paper application submission dates fall under two different categories: 1) Standard Postmark/Submission Dates (also known as "send by" dates) and 2) Special Receipt Dates (also known as "arrive by" dates) which are specified in RFAs and PAs.

Applications submitted for the standard submission dates listed at http://grants.nih.gov/grants/dates.htm are considered on time if they are sent on or before the appropriate date listed and a proof of mailing is provided. The critical determination is when the application is sent, not when it arrives at NIH. Proof of timely mailing consists of one of the following: a legibly dated U.S. Postal Service postmark or a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks are not acceptable.

**Funding Opportunity Announcements (RFAs and Pas). Applications** in response to announcements with special receipt dates **must be received at NIH by the** specified **date.** However, an application received after the deadline may be acceptable if it carries a legible proof-of-mailing date assigned by the carrier not later than 1 week prior to the deadline date. Note: This differs from the procedures for submitting applications for those dates listed in the table, which are considered submission or "send by" dates.

**Weekend/holiday submission dates.** If a submission date falls on a weekend, it will be extended to the following Monday; any time the date falls on a holiday, the submission date will be extended to the following business day. The application will be on time if it is sent on the following business day.

**Late applications.** Permission is not granted in advance for submission of a late application. Late applications are accepted only in extenuating circumstances. If an application is submitted late, a cover letter explaining the reasons for the delay must be included with the signed, completed application. Late applications are evaluated on an individual basis considering the reasons provided. Contacting the Division of Receipt and Referral in advance will not influence the acceptance of a late application. For additional information on late applications, see NOT-OD-08-027, dated January 4, 2008 (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-027.html) and clarification in NOT-OD-08-111, dated September 2, 2008 (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-111.html).

## 2.15 Submission and Review Cycles

The PHS submission, review, and award schedule is provided at this website: http://grants.nih.gov/grants/dates.htm. Note that many funding mechanisms have transitioned to electronic submission and the SF424 (R&R) application and instructions. The PHS 416-1 is not scheduled to transition until April, 2009 so applicants should continue to use this version of the instructions and forms. Applicants should refer to the OER Electronic Submission of Grant

Applications website, http://era.nih.gov/ElectronicReceipt/ for details on the transition to electronic submission.

For specialized grant applications, consult with the appropriate PHS agency prior to the preparation of an application.

**Application Assignment Information**

Competing grant applications submitted to the PHS agencies must be submitted through the Division of Receipt and Referral, CSR, NIH unless otherwise stated. Administrative information about the application is entered into a computer system. The application is then assigned to an appropriate Scientific Review Group (SRG) and Institute(s). Assignment is based on the scientific content of the application using established referral guidelines.

After the submission date, usually within four (4) weeks, the applicant/fellow and the sponsoring organization will be able to access in the eRA Commons the application's assignment number; the name, address, and telephone number of the Scientific Review Officer (if the review takes place in CSR) or the review official of an IC Scientific Review Group to which the application has been assigned; and the assigned Institute contact and phone number. Review outcome and other important information are also available in the Commons.

If applicant assignment information is not available in the eRA Commons within two weeks of the submission date, contact the Division of Receipt and Referral, Center for Scientific Review (CSR), National Institutes of Health, Bethesda, MD 20892-7720, (301) 435-0715; TTY (301) 451-5936. If there is a change in assignment, you will receive another notification.

Applicant investigators must not communicate directly with any study section or review group member about an application either before or after the review. Failure to strictly observe this policy will create serious breaches of confidentiality and conflicts-of-interest in the peer review process. From the time of assignment to the time the review of your application is complete, you must direct all questions to the Scientific Review Officer or review official outside of CSR. This individual is in charge of the review group and is identified in the eRA Commons.

# 2.16 Resources for Finding Help

## 2.16.1 (Reserved)

## 2.16.2 Finding Help for the eRA Commons Registration

If help is needed with the eRA Commons registration process for the applicant organization and PD/PIs, contact the eRA Commons Helpdesk:

eRA Commons Helpdesk: http://ithelpdesk.nih.gov/eRA/

eRA Commons Helpdesk Email: commons@od.nih.gov

eRA Commons Phone: 301-402-7469
866-504-9552 (Toll Free)
301-451-5939 (TTY)

The eRA Commons Helpdesk hours of operation are Monday-Friday from 7:00 a.m. to 8:00 p.m. Eastern Time.

### 2.16.3 Finding Help for Application Preparation

If after reviewing these application instructions, help is needed in preparing the application, contact GrantsInfo:

| | |
|---|---|
| GrantsInfo Phone: | 301-435-0714<br>301-451-5936 (TTY) |
| GrantsInfo Email: | GrantsInfo@nih.gov |

# 3. Submission of the Grant Application

**Submit a complete application.** Incomplete applications will be grounds for the PHS to return the application without peer review. An application will be returned if it is illegible, if the instructions were not followed, or if the material presented is insufficient to permit an adequate review.

The application must be complete and accurate at the time of submission. There is no guarantee that the Scientific Review Officer will accept or the peer reviewers will consider late material.

## 3.1 Cover Letter

This section provides instructions for assembling the grant application, the application mailing address, and a schedule of the Individual Fellowship application receipt, review, and award cycles.

Applicants are encouraged to include a cover letter with the application. The letter is only for internal agency use and will not be shared with peer reviewers. Place the letter at the beginning of the original application; do not copy it.

- Application title.
- Funding Opportunity Announcement (PA, RFA or Parent Announcement title, if applicable).
- Request of an assignment (referral) to a particular IC or Scientific Review Group (SRG). While requests are given careful consideration, the PHS makes the final determination for assignments. (See suggested format below.)
- List of individuals (e.g., competitors) who should not review the application and why.
- Disciplines involved, if multidisciplinary.
- Statement that any required NIH approval documentation for the type of application submitted is enclosed.
- For late applications (see Late Application Policy), include an explanation of the delay as part of the cover letter.

**Suggested Cover Letter Format**

The Division of Receipt and Referral (DRR), Center for Scientific Review (CSR) is responsible for assigning applications to ICs and to scientific review groups (SRGs). DRR will be utilizing knowledge management approaches as an adjunct to the work of referral experts as part of an overall plan to shorten the time from submission to review. Analysis has shown that requests made by investigators are a valuable source of information in this process. In order to facilitate the use of these requests in conjunction with knowledge management analysis of the content of the application, applicants are requested to use the following format when assignment requests are contained in a cover letter.

- List one request per line.
- Place institute/center (IC) and SRG review requests (if both are made) on separate lines.
- Place positive and negative requests (if both are made) on separate lines.
- Include name of IC or SRG, followed by a dash and the acronym. Do not use parentheses.
- Provide explanations for each request in a separate paragraph.

Examples:

Please assign this application to the following:

Institutes/Centers

National Cancer Institute - NCI

National Institute for Dental and Craniofacial Research – NIDCR

Scientific Review Groups

Molecular Oncogenesis Study Section – MONC

Cancer Etiology Study Section – CE

Please do not assign this application to the following:

Scientific Review Groups

Cancer Genetics Study Section – CG

The reasons for this request are [provide a narrative explanation for the request(s)].

## 3.2 Number of Copies

Submit the **original and two** identical, legible, single-sided photocopies of each application. The **original must be signed** by the Official Signing for Sponsoring Institution on the Face page.

## 3.3 Binding and Packaging

Submit the following materials in *one* package:

- cover letter (original only);
- original application, including the Personal Data page at the end of the application;
- two copies of the application, made after the original has been signed and **not** including the Personal Data Page;
- at least 3 sealed letters of reference;
- Appendix materials – five identical CDs of all appendix material in PDF format.

Do not include more than one application (original plus 2 copies and appendices) in each mailing envelope.

**The original application.** The original application must be single-sided, with the required signature on the Face Page. Do *not* staple or otherwise bind the original application. Use rubber bands or clips. Assemble the pages in the order specified in the table of contents. Place the Personal Data page at the end of the original application; it is **not** to be duplicated. If appropriate, attach the RFA label provided in the application kit or a facsimile to the Face Page.

**Two identical, single-sided copies of the original application.** Make the copies **after** the Official Signing for Sponsoring Institution has signed the Face Page so the signature is present on the copies. Do **not** staple or otherwise bind the two copies of the original application. Rubber bands are acceptable.

**Letters of reference**. At least **three sealed letters** of reference attached firmly to the Face Page of the original application.

**Five identical CDs containing all appendix material.** When preparing CDs:

- Use PDF format.
- Label each disk with the Applicant Fellow name and application title.
- If burning CD-ROM disks on a Mac, select the ISO 9660 format.
- Do not use compression techniques for the electronic files.
- Do not use password protection, encryption, digital signature and/or digital certification in the PDF files.

## 3.4 Application Mailing Address

Use the mailing labels provided with the PHS 416-1.

Send the application to the following address, making sure to use the correct ZIP code:

Center for Scientific Review
National Institutes of Health

6701 Rockledge Drive, Suite 1040
MSC 7710
Bethesda, MD 20892-7710
**(United States Postal Service (USPS) Express or Regular mail)**
or
Bethesda, MD 20817 **(Express/Courier Non-USPS Service)**

The telephone number is (301) 435-0715
TTY (301) 451-5936.

**C.O.D. applications will not be accepted.**

All applications and other deliveries to the Center for Scientific Review must come either via courier delivery (e.g. Federal Express, DHL, UPS) or via the USPS. Applications delivered by individuals to the Center for Scientific Review will not be accepted. For additional information see **http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-040.html.**

There may be additional instructions for submission of responses to RFAs; check the FOA for details.

For applications to other (non-NIH) PHS agencies, refer to the FOA for submission instructions and mailing addresses.

# 4. Completing the PHS 416-1 Forms and Format Pages

- Prepare the application using the PHS 416-1 form pages and format pages as provided.
- *Form pages* must be identical to those provided. You may substitute computer-generated facsimiles for government-provided forms; however, they must maintain the exact wording and format of the government forms, including all captions and spacing.
- *Format pages* are intended to assist you in the development of specific sections of the application. Alternatively, you may create a page similar to any format provided as long as all the requisite information is included.
- The face page must not have any shading/colors.
- Font sizes on some PHS 416-1 form pages vary due to field or space limitations. The PHS 416-1 Microsoft Word (MS WORD) and Portable Document File (PDF) Form Pages as provided are acceptable to NIH. All other sections of your application (e.g., Biographical Sketch; Introduction, if necessary; Literature Citations; and the Research Training Plan) must conform to the font requirements stated below.
- Some fields on the PDF Form Pages are pre-set to auto calculate. In these cases, a zero will appear until actual data are entered.

**Specific Instructions for Applicant Fellow**

This application is mostly completed by the applicant with extensive consultation with the sponsor and co-sponsor (if any), and institutional officials at the sponsoring institution. Certain information is

completed by the sponsor and sponsoring institution administrative officials. Items to be completed by anyone other than just the applicant are clearly marked.

This application consists of three Sections:

***Section I***: To be completed by you the Applicant/Fellow. Sections of Section I are to be completed with appropriate consultation with your sponsor, co-sponsor (if any) and sponsoring institutional officials when applicable. These items are clearly marked. Section I includes:

- Face Page (Form Page 1)
- Form Page 2
- Form Page 3
- Form Page 4, Table of Contents
- Applicant/Fellow Biosketch
- Form Page 5, Previous Research Experience
- Research Training Plan, Sections 1 - 21, some with sponsor consultation
- Checklist, A, C, and D
- Personal Data on Kirschstein-NRSA Individual Fellowship Applicant Page

***Section II***: To be completed by the Sponsor (and Co-Sponsor when applicable)

- Sponsor and Co-Sponsor Biosketch(es)
- Sponsor and Co-Sponsor Information (see instructions)

***Section III: References:*** To be completed by your chosen referees and included in sealed envelopes along with this application.

All sections must be submitted together in the same envelope; otherwise, the application will be returned without review.

This application is used for all types of Kirschstein-NRSA Individual Fellowships—Predoctoral, Postdoctoral, and Senior. Special instructions may apply to Predoctoral or Senior Fellowships. The following table summarizes where instructions differ for these types of fellowships.

**Special Instructions for Predoctoral and Senior Fellowships Applicants**

| PREDOCTORAL FELLOWSHIPS | |
|---|---|
| Face Page Item 2, Level of Fellowship | Special Instructions |
| Face Page Item 3, Response to PA/RFA | Special Instructions |
| Form Page 3, Activities Planned Under This Award | Special Instructions |

| PREDOCTORAL FELLOWSHIPS | |
|---|---|
| Applicant/Fellow Biosketch<br>C. Scholastic Performance | Special Instructions |
| Form Page 5, Item 24a & b, Thesis/Dissertation Title and Advisor.<br>Item 25, Doctoral Dissertation and Other Research Experience | Omit<br>Special Instructions |
| Checklist, C | Omit |
| Checklist, D, Tuition, Fees, Health Insurance | Special Instructions |
| References | Special Instructions |
| Kirschstein-NRSA Payback Assurance | Does not apply |

| SENIOR FELLOWSHIPS | |
|---|---|
| Face Page, Item 2, Level of Fellowship | Special Instructions |
| Face Page, Item 3, Response to RFA/PA | Special Instructions |
| Applicant/Fellow Biosketch | Do not use. Use traditional biosketch found in the PHS398 |
| Form Page 5, Item 24a & b, Thesis/Dissertation Title and Advisor | Omit |
| Research Training Plan, Section 20. Selection of Sponsor and Institution | Special Instructions |
| Checklist, C | Special Instructions |
| Checklist, D. Tuition, Fees, Health Insurance | Omit |

The applicant completes Section I of the application (see list above) in consultation with the sponsor. The application should then be provided to the sponsor and sponsoring institution, along with these instructions and any other information required for completion and submission. *This includes the sealed reference letters*. The sponsor should review the specific instructions for and complete Section II, Sponsor's Information. The applicant and sponsor should verify that the application has been properly completed, assembled, and paginated, and that appropriate institutional approvals and signatures have been obtained.

Kirschstein-NRSA Individual Fellowships provide a stipend to the awardee plus an allowance to the sponsoring institution to defray some of the fellow's training expenses. Individuals sponsored by foreign institutions may also receive travel funds. Detailed information is provided in the Kirschstein-NRSA section of the *NIH Grants Policy Statement* at http://grants.nih.gov/grants/policy/nihgps_2003/.

The only budget information requested in the application is that related to tuition and fees for courses which support the research training experience, health insurance (self-only or family) for predoctoral applicants, and stipend/salary information for senior fellowship applicants (see Checklist, instructions for Section I, Items C and D). Other budget items are fixed, based on a formula or determined at time of award, and the applicant need not provide any information.

## 4.1 Face Page (Form Page 1) (Application Section I)

*The entire Face Page must be printed on a single page.* The Face Page must not have any shading or colors.

***Item 1, Title of Research Training Proposal***

*Do not exceed* **81 characters***, including the spaces between words and punctuation*. Choose a descriptive title that is specifically appropriate. The title should not be worded in a way that could easily be misconstrued if quoted out of context. A *new* application must have a different title from any other PHS project with the same individual applicant. A *resubmission application or renewal* should normally have the same title as the previous application or grant. If the specific aims of the project have significantly changed, choose a new title.

***Item 2, Level of Fellowship***

Indicate the level of fellowship requested in the Individual Fellowship application (predoctoral, postdoctoral, senior). Postdoctoral fellowships are provided by the NIH ICs and AHRQ.

Predoctoral fellowships are provided by a limited number of NIH ICs and AHRQ. Therefore, individuals interested in this type of award are strongly encouraged to consult with the appropriate IC or AHRQ before submitting an application. **This action is of utmost importance because applications with marginal or no relevance to the mission of the participating NIH ICs or AHRQ will not be accepted for review or funding.**

Senior fellowships are provided by a limited number of NIH ICs and some ICs have specific criteria for accepting this type of fellowship. Therefore, individuals interested in this type of award are strongly encouraged to consult with the appropriate IC before submitting an application. (AHRQ does not provide senior fellowships.) Eligibility for a senior fellowship includes possession of a doctoral degree for at least 7 years and an established research career.

***Item 3, Program Announcement /Request for Applications***

If you are applying for a postdoctoral fellowship through the NIH-wide postdoctoral program, leave this section blank. However, if you are applying for a specific program announced by a particular Institute, check Yes, and enter the appropriate PA number (e.g., PA-05-###) and title.

If you are applying for a predoctoral fellowship program, check Yes, and enter the appropriate PA number (e.g., PA-05-###) and title. Predoctoral PA numbers are listed at: http://grants.nih.gov/training/nrsa.htm#fellowships.

If you are applying for the senior fellowship program, check Yes, and enter the appropriate PA number. Instead of the complete PA title, it is OK to enter “Senior Fellowship” in the PA title field.

For responses to RFAs, attach the RFA label or a facsimile, including the RFA number, to the bottom of the Face Page of the original application. The RFA label is under the general mailing label at the end of the forms section. Any special instructions in the RFA must be followed when preparing the application.

***Item 4a, Name of Applicant***

Insert the name of the individual applying for the fellowship (applicant). Provide last name followed by a comma, first name, and middle name.

***Item 4b. eRA Commons User Name***

If you are registered in the eRA Commons, enter the assigned Commons User Name. The Commons User Name is the ID assigned to and used by you to access the Commons. This data item is now required.

***Item 4c, Highest Degree(s) at Activation***

Indicate up to three academic and professional degrees held or expected to be held on the start date of the requested fellowship. For foreign degrees, give the U.S. equivalent.

***Item 4d, Present Mailing Address***

Provide complete information (including room number, building, and street address) necessary for postal delivery of the address where the applicant can be reached at any time before the beginning date of the requested fellowship. Changes should be reported promptly in writing.

***Item 4e, Permanent Mailing Address***

If the information given in Item 4d is not a permanent address, provide the complete address where you can always be contacted. Changes should be reported promptly in writing. If this address is the same as in 4d, indicate “same”.

***Items 4f to 4j***

Self-explanatory.

***Item 4k, Citizenship***

Candidates must check the appropriate box. To be eligible for a Kirschstein-NRSA Individual Fellowship (F30, F31, F32, F33), the candidate must be a U.S. citizen, a non-citizen national, or have been lawfully admitted to the U.S. for permanent residence before the award is issued. U.S. non-citizen nationals are persons born in lands that are not States but are under U.S. sovereignty, jurisdiction, or administration, e.g., American Samoa. Individuals on temporary student visas are not eligible for NRSA support.

If the candidate has been lawfully admitted for permanent residence, i.e., is in possession of an Alien Registration Receipt Card or other legal verification of such status, the candidate should check the “Permanent Resident of U.S.” box. Before the award is issued, a permanent resident will be required to submit a notarized statement that a licensed notary has seen the applicant’s Alien Registration

Receipt Card or some other valid verification from the U.S. Immigration and Naturalization Service of legal admission to the U.S. as a permanent resident.

If the candidate is a non-citizen of the U.S. who has applied for, but not yet been granted legal admission to the U.S. as a permanent resident, the candidate should check the "Permanent Resident of U.S. Pending" box, understanding that no award will be issued until such time as the required permanent residency has been established and the required documentation submitted to the NIH IC.

If the candidate is applying for a non-NRSA fellowship program supported by the NIH, for which citizenship or permanent residency is not required (e.g., Fogarty International Center programs), the candidate must have in his/her possession a valid visa allowing him/her to remain in the U.S. (or in a foreign research training setting, if applicable) long enough to be productive on the proposed fellowship project. It is the responsibility of the sponsoring institution to determine and retain documentation indicating that the individual candidate's visa will allow him/her to reside in the proposed research training setting for the period of time necessary to complete the proposed fellowship. The candidate should check the "Non-U.S. Citizen with temporary U.S. visa" box. This information may be requested by the NIH IC prior to issuance of an award except in certain circumstances, such as for F05 applicants, who would have a temporary U.S. visa pending since a visa application cannot be submitted until the grant is awarded. In general, it is highly recommended that all non-U.S. citizens need to adhere to specific requirements as stated in the FOA or contact the appropriate individual listed on the FOA.

***Item 5, Training Under Proposed Award***

List the proposed area of research training according to the Fields of Training in Section 7 of these instructions. The Fields of Training listing indicates several major areas, each with subcategories. Select the subcategory that corresponds to the proposed area of research training. Provide *both* the number and name of the subcategory, e.g., 2470 Virology. If the Fields of Training listing does not provide a good descriptor, use the closest subcategory from the list.

This information is used for reporting purposes only and is not used for study section assignments.

***Item 6, Prior and/or Current Kirschstein-NRSA Support (Individual or Institutional)***

If "Yes," refer to Item 22 (Form Page 5).

***Item 7a, Dates of Proposed Award***

Indicate the start and end dates of the requested support period. The earliest possible start date and the length of Kirschstein-NRSA support that can be provided are shown in a specific solicitation (i.e., PA/RFA) or in Part I, Section 3.5 of these instructions, "Application Submission Dates."

***Item 7b, Proposed Award Duration***

Indicate the number of months (2 digits) covered by the dates in Item 7a.

***Item 8, Degree Sought During Proposed Award***

Complete if applicable. Completion of the degree requirements should be coordinated with the sponsor.

***Items 9 through 14 are completed in consultation with the Sponsor and Administrative Officials at the Sponsoring Institution)***

## *Item 9, Human Subjects Research*

### No Human Subjects Involved

Check “No” if activities involving human subjects are not planned at any time during the proposed project period. The remaining parts of Item 9 are then not applicable.

### Human Subjects Involved

Check “Yes” if activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other Project/Performance Site or collaborating institution. Check “Yes” if the research is exempt from DHHS regulatory requirements for the protection of human subjects (see Exemption Categories).

If you plan to conduct research involving human subjects, but do not have definite plans at the time of application, you will need to include this information in Item 8 of the Research Training Plan. Certification of IRB review and approval must be provided and accepted by the awarding component before the research may occur.

NIH does not require certification of review and IRB approval of proposed research prior to NIH peer review of an application (see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-031.html and Part II, Human Subjects Research supplemental instructions). However, any modification of the Research Training Plan section of the application required by the IRB or to address human subjects concerns raised during review, must be submitted for approval before award. See also the Just-In-Time Policy and IRB Approval.

The DHHS regulations "Protection of Human Subjects" (45 CFR Part 46, administered by OHRP) define a human subject as “a living individual about whom an investigator conducting research obtains: data through *intervention* or *interaction* with the individual or *identifiable private information*.” See Part III.3 for the definitions of italicized terms used in the definition of human subject.

Regulatory requirements (Federal and state) to protect human subjects may apply to research using human specimens and/or data, such as use of:

- Bodily materials, such as cells, blood or urine, tissues, organs, hair or nail clippings, from living individuals who are individually identifiable to the investigator(s), even if these materials were collected by others;

- Residual diagnostic specimens from living individuals that are individually identifiable to the investigator(s), including specimens obtained for routine patient care that would have been discarded if not used for research;

- Private information, such as medical information, about living individuals that is individually identifiable to the investigator(s), even if the information was not specifically collected for the study in question. This includes research on genetic information that can be readily associated by the investigator(s) with identifiable living individuals.

Research that involves only *coded* private information/data or *coded* human biological specimens may not constitute human subjects research under the DHHS human subjects regulations (45 CFR Part 46) if:

- the specimens and/or private information were not collected specifically for the currently proposed research project through an interaction/intervention with living individuals AND

- the investigator(s) (including collaborators) on the proposed research cannot readily ascertain the identity of the individual(s) to whom the coded private information or specimens pertain (e.g., the researcher's access to subject identities is prohibited by written repository procedures and policies and/or through a written agreement signed by the investigator and the repository providing the specimens and/or data).

See definition of *coded* in Part III.3 under Human Subjects definitions, and the following guidance from the Office for Human Research Protections (OHRP) for additional information and examples: http://www.hhs.gov/ohrp/humansubjects/guidance/cdebiol.pdf.

Individuals who provide *coded* information or specimens for proposed research and who also collaborate on the research involving such information or specimens are considered to be involved in the conduct of human subjects research as investigators (see definition of human subjects).

Additional information is available at:

- OHRP Decision Charts: http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm

- OHRP Guidance on Repositories: http://www.hhs.gov/ohrp/humansubjects/guidance/reposit.htm; http://www.hhs.gov/ohrp/humansubjects/guidance/guid1223.pdf

- OHRP Memo on Engagement: http://www.hhs.gov/ohrp/humansubjects/assurance/engage.htm

- NIH Office of Extramural Research Human Subjects website: http://grants.nih.gov/grants/policy/hs/index.htm.

**Item 9a. Exemptions from Department of Health and Human Services (DHHS) Human Subjects Regulations**

Check "Yes" if the activities proposed are exempt from the regulations at 45 CFR Part 46. Insert the exemption number(s) corresponding to one or more of the six exemption categories listed in Part III under Human Subjects Research Definitions and Terms.

OHRP guidance states that appropriate use of Exemptions described in 45 CFR 46 should be determined by an authority independent from the investigators (http://www.hhs.gov/ohrp/humansubjects/guidance/irb71102.pdf). Institutions often designate their IRB to make this determination. Because NIH does not require IRB approval at the time of application, the exemptions designated in item 9a often represent the opinion of the PD/PI, and the justification provided for the exemption by the PD/PI is evaluated during peer review.

Proposed research may include more than one research project; thus the application may include individual projects that meet the requirements for non-exempt or exempt human subjects research, or are not defined as human subjects research. Human subjects research should be designated as exempt if **all** of the proposed research meets the criteria for one or more of the six exemptions.

Check "No" if the planned activities involving human subjects are not exempt, and complete the remaining parts of Item 9.

**Item 9b. Federalwide Assurance Number**

If the applicant organization has a current approved Federalwide Assurance (FWA) on file with the OHRP (http://www.hhs.gov/ohrp/), enter the number in the space provided.

Enter "None" in Item 9b if the applicant organization does not have an approved FWA on file with OHRP. In this case, the signature on the Face Page is a declaration that the applicant organization will comply with 45 CFR Part 46 and proceed to obtain a FWA (see http://www.hss.gov/ohrp).

*Do not enter the human subjects assurance number of any Project/Performance Site or collaborating institution in the space provided.*

***Item 9c. Clinical Trial***

Check "Yes" or "No" to indicate whether the project includes a clinical trial. Refer to the definition of "clinical trial" in Part III.3, under Human Subjects Research Definitions and Terms.

***Item 9d. NIH-Defined Phase III Clinical Trial***

Check "Yes" or "No" to indicate whether the project is an NIH-Defined Phase III Clinical Trial. Refer to the definition of "NIH-Defined Phase III Clinical Trial" in Part III.3, under Human Subjects Research Definitions and Terms.

***Item 10. Vertebrate Animals***

Check "No" if activities involving vertebrate animals are not planned at any time during the proposed project period, and leave item 10a blank. Note that generation of custom antibodies constitutes an activity involving vertebrate animals.

Check "Yes" if activities involving vertebrate animals are anticipated or planned at any time during the proposed project period, either at the applicant organization or at any other Project/Performance Site or collaborating institution. If animal involvement is anticipated within the period of award but plans are indefinite and it is not possible to describe the use of animals, check "Yes" and in the Research Training Plan, Item 15, provide an explanation and indicate when it is anticipated that animals will be used. Before activities with animals begin, the applicant must provide all of the information required by the, Research Training Plan, Item 15, Vertebrate Animals, with verification of current IACUC approval, to the awarding component for prior approval. IACUC approval must have occurred within the past three years to be considered current.

NIH does not require verification of review and approval of the proposed research by the Institutional Animal Care and Use Committee (IACUC) before peer review of the application. However, this information is required under Just-In-Time Policy.

***Item 10a. Animal Welfare Assurance***

If the applicant organization has a current approved Animal Welfare Assurance on file with the Office of Laboratory Animal Welfare (OLAW), enter the Assurance number of the applicant organization in Item 10a. To determine whether the organization holds an Animal Welfare Assurance, contact the IACUC or see http://grants.nih.gov/grants/olaw/olaw.htm#assur.

Enter “None” in Item 10a if the applicant organization does not have an Animal Welfare Assurance on file with OLAW. **Do not enter the Animal Welfare Assurance number of any Project/Performance Site or collaborating institution.** The signature on the Face Page constitutes declaration that the applicant organization will comply with PHS Policy on Humane Care and Use of Laboratory Animals by submitting an Animal Welfare Assurance when requested by OLAW and providing verification of IACUC approval when requested by the PHS awarding component.

### ***Item 11, Sponsoring Institution***

Name the one institution that will be legally responsible for committing facilities for the applicant and financially responsible for the use and disposition of any funds awarded based on this application. The address should include the street, city, state, and zip code.

### ***Item 12a&b, Entity Identification Number and Dun & Bradstreet Number (DUNS)***

The Entity Identification Number (EIN) should be checked or supplied by the business official of the sponsoring institution. The EIN is used by DHHS for payment and accounting purposes. If a number has not yet been assigned by DHHS, enter the institution's Internal Revenue Service (IRS) employer identification number (nine digits). This number will identify the organization to which funds will be disbursed.

A Dun & Bradstreet (D&B) Data Universal Numbering System (DUNS) number for the sponsoring institution must be entered. The DUNS number is a nine-digit identification code assigned by Dun & Bradstreet. For additional information on this requirement see NIH Guide Notice OD-03-055 (http://grants.nih.gov/grants/ guide/notice-files/NOT-OD-03-055.html). The EIN and DUNS numbers are not applicable for fellows at Federal laboratories.

### ***Item 13, Official Signing for Sponsoring Institution***

Name the sponsoring organization administrative official to be notified if an award is made. Provide a complete address for postal delivery and the telephone, fax, and e-mail address for the administrative official.

This information is to be supplied for the business official of the sponsoring institution, including Federal laboratories.

### ***Item 14, Applicant Organization Certification and Acceptance***

An original signature, in ink, is required. Only an institutional official with formal designated or delegated authority to sign on behalf of the organization may sign the form. The signature must be dated. *In signing the application Face Page, the duly authorized representative of the applicant organization certifies that the applicant organization will comply with all applicable policies, assurances and/or certifications referenced in the application.*

The applicant organization is responsible for verifying its eligibility and the accuracy, validity, and conformity with the most current institutional guidelines of all the administrative, fiscal, and scientific information in the application, including the Facilities and Administrative rate. Deliberate withholding, falsification, or misrepresentation of information could result in administrative actions, such as withdrawal of an application, suspension and/or termination of an award, debarment of individuals, as well as possible criminal penalties. The signer further certifies that the applicant organization will be accountable both for the appropriate use of any funds awarded and for the performance of the grant-

supported project or activities resulting from this application. The grantee institution may be liable for the reimbursement of funds associated with any inappropriate or fraudulent conduct of the project activity.

***Assurances and Certifications***

Each application to the PHS requires that the following policies, assurances and/or certifications be verified by the signature of the Official Signing for Applicant Organization on the Face Page of the application. These assurances are explained in Part III: Policies, Assurances, Definitions, and Other Information. Applicants and grantees must comply with a number of additional public policy requirements. Refer to your institution's research grant administrative office or the *NIH Grants Policy Statement* (available from the NIH website at http://grants.nih.gov/grants/policy/policy.htm) for additional information.

The policies, assurances and certifications listed below may or may not be applicable to your project, program, or type of applicant organization:

Human Subjects Research

Research on Transplantation of Human Fetal Tissue

Research Using Human Embryonic Stem Cells

Women and Minority Inclusion Policy

Inclusion of Children Policy

ClinicalTrials.gov Requirements

Vertebrate Animals

Debarment and Suspension

Drug-Free Workplace

Lobbying

Non-Delinquency on Federal Debt

Research Misconduct

Civil Rights

Handicapped Individuals

Sex Discrimination

Age Discrimination

Recombinant DNA, including Human Gene Transfer Research

Financial Conflict of Interest

Smoke-Free Workplace

Prohibited Research

Select Agent Research

Fellow and Sponsor Assurance

Impact of Grant Activities on the Environment and Historic Properties

## 4.2 Form Page 2

### 4.2.1 Sponsor and Co-Sponsor Contact Information

Items 15 and 16. These sections are to be completed in consultation with your sponsor and co-sponsor (if any).

Include complete contact information. If applicable, identify the co-sponsor in the section (labeled co-sponsor) below and provide contact information. A biographical sketch is required for the sponsor and any co-sponsor. See other required information as specified in Section 5.8.

### 4.2.2 Department, Service, Laboratory, or Equivalent

Indicate the sponsor's organizational affiliation at the sponsoring institution, e.g., Department of Medicine, Materials Research Laboratory, or Social Science Institution. If the department, etc. is part of a larger component, indicate both, e.g., Section on Anesthesiology, Department of Surgery, or Division of Laboratory Medicine, Department of Medicine.

### 4.2.3 Major Subdivision

The component named in Item 15c is a part of the Major Subdivision.

Indicate the school, college, or other major subdivision, such as medical, dental, engineering, graduate, nursing, public health. If there is no such level in the sponsoring institution, enter "None."

### 4.2.4 Co-Sponsor

If the research training proposed involves a co-sponsor, complete this section. Otherwise leave blank.

### 4.2.5 Research Proposal Description: Project Summary and Relevance

Item 17. The first and major component of the Description is a *Project Summary*. It is meant to serve as a succinct and accurate description of the proposed work when separated from the application. State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project (i.e., relevance to the *mission of the NIH IC or AHRQ*). Describe concisely the research design and methods for achieving the stated goals. This section should be informative to other persons working in the same or related fields and insofar as possible understandable to a scientifically or technically literate reader. Avoid describing past accomplishments and the use of the first person.

The second component of the Description is **Relevance**. Using no more than two or three sentences, describe the relevance of this research to **public health**. In this section, be succinct and use plain language that can be understood by a general, lay audience.

**DO NOT EXCEED THE SPACE PROVIDED.**

Do not include proprietary, confidential information or trade secrets in the description section. If the application is funded, the project description will be entered into an NIH database (Computer Retrieval of Information on Scientific Projects - CRISP) and will become public information.

# 4.3 Form Page 3

## 4.3.1 Career and Training Goals

Item 18. Describe your overall career goals and explain how the training proposed here will enable you to reach these goals. Identify the skills, theories, conceptual approaches, etc. to be learned or enhanced during the award. You may use a continuation page if necessary.

## 4.3.2 Activities Planned Under This Award

Item 19. Using the chart provided, specify by year the activities (research, course work, etc.) you will be involved in under the proposed award and estimate the percentage of time to be devoted to each activity. The percentages should total 100 for each year. Base the percentage figures on a normal working day for a full-time fellow as defined by the sponsoring institution. Also, briefly explain activities other than research and relate them to the proposed research training.

For postdoctoral fellowships, do not exceed three years. Predoctoral fellowships may reflect up to five years. MD/Ph.D. applicants may request up to six years if this limit is stated in the program announcement.

## 4.3.3 Training Site(s)

Item 20. Is the Primary Training Site the same as the Sponsoring Institution (check Yes or No)? If No, provide the detailed information for the Primary Training Site Location.

If there is more than one Training (Project/Performance) Site, list all the sites, including Department of Veterans Affairs (V.A.) facilities and foreign sites, as required by the Federal Financial Accountability and Transparency Act (FFATA), and provide an explanation. One of the sites indicated must be the sponsoring organization. Provide the explanation under the Research Training Plan, Item 20, Selection of Sponsor and Institution.

If a Training (Project/Performance) Site is engaged in research involving human subjects, the applicant organization is responsible for ensuring that the Project/Performance Site operates under an appropriate Federalwide Assurance for the protection of human subjects and complies with 45 CFR Part 46 and other NIH human subject related policies described in the PHS 416-1 and GPS.

For research involving live vertebrate animals, the applicant organization must ensure that all Training (Project/Performance) Sites hold OLAW-approved Assurances. If the applicant organization does not have an animal program or facilities and the animal work will be conducted at an institution with an Assurance, the applicant must obtain an Assurance from OLAW prior to an award.

### 4.3.4 Human Embryonic Stem Cells

Item 21. If the proposed project involves human embryonic stem cells, list in this section the registration number of the specific cell line(s) from the stem cell registry found at: http://stemcells.nih.gov/registry/index.asp. Use continuation pages as needed. If a specific line cannot be referenced at the time of application submission, include a statement that one from the registry will be used. See http://stemcells.nih.gov/research/registry/eligibilityCriteria.asp for additional information on stem cells, and http://stemcells.nih.gov/policy/guidelines.asp for Federal policy statements and guidelines on federally funded stem cell research.

## 4.4 Table of Contents (Form Page 4)

Self-explanatory.

## 4.5 Applicant/Fellow Biographical Sketch

*The Applicant/Fellow Biographical Sketch Format Page is available only in MS Word format*.

The biographical sketch for you, the applicant/fellow, is very similar to the traditional biographical sketch format used by your sponsor. However, there are notable differences so follow these special instructions and use the special sample format provided. If you are applying for a predoctoral or postdoctoral fellowship, use this custom biographical sketch format page. If you are applying for a Senior Fellowship, use the traditional PHS 398 Biographical Sketch Format Page.

All individuals who have the PD/PI role **must** be registered in the eRA Commons, and **must** include the assigned Commons User Name. This information is required. For information on the eRA Commons, see https://commons.era.nih.gov/commons/index.jsp.

Use the sample format on the Biographical Sketch Format Page to prepare this section for **all** grant applications. The Biographical Sketch may not exceed 4 pages. This 4-page limit includes the table at the top of the first page. (See sample of a completed Biographical Sketch: http://grants.nih.gov/grants/funding/phs398/phs398.html#biosample.)

Complete the educational block at the top of the format page, and complete sections A, B, and C.

The Biographical Sketch for you the Applicant/Fellow may not exceed four pages. This page limit includes the information requested in the boxes, tables and charts on the form. See **Sample Biographical Sketch**.

**Education/Training.**

List all degree programs beginning with baccalaureate or other initial professional education and licensure, such as nursing (RN). Include all dates (month (mm) and year (yyyy)) of degrees received or expected, in addition to other information requested.

***A. Positions and Honors***

List in chronological order all non-degree training, including postdoctoral research training, all employment after college, and any military service. Clinicians should include information on internship, residency and specialty board certification (actual and anticipated with dates) in addition to other information requested. This information is used in reviewing the application and in determining

the stipend level for Postdoctoral Fellowships. State the Activity/Occupation and include beginning/end dates, field, name of institution/company, and the name of your supervisor/employer.

List any academic and professional honors that would reflect upon your potential for a research career and qualifications for an Individual Fellowship. Include all scholarships, traineeships, fellowships, and development awards other than Kirschstein-NRSA. Indicates sources of awards, dates, and grant or award numbers. List current memberships in professional societies, if applicable.

***B. Publications***

List your entire bibliography, separating research papers, abstracts, book chapters, and reviews. Within each subsection the list should be chronological. For each publication, list the authors in published sequence, full title of article, journal, volume number, page numbers, and year of publication. Indicate if you previously used another name that is reflected in any of the citations. Manuscripts listed as “pending publication” or “in preparation” should be included and identified.

When citing articles that fall under the Public Access Policy, were authored or co-authored by the applicant and arose from NIH support, provide the NIH Manuscript Submission reference number (e.g., NIHMS97531) or the PubMed Central (PMC) reference number (e.g., PMCID234567) for each article. If the PMCID is not yet available because the Journal submits articles directly to PMC on behalf of their authors, indicate "PMC Journal - In Process." A list of these Journals is posted at: http://publicaccess.nih.gov/submit_process_journals.htm. Citations that are not covered by the Public Access Policy, but are publicly available in a free, online format may include URLs or PMCID numbers along with the full reference (note that copies of these publications are not accepted as appendix material, see Section 5.7).

***C. Scholastic Performance***

Predoctoral applicants: Using the chart provided, list by institution and year all undergraduate and graduate courses with grades.

In addition, in the space following the chart, explain any marking system if other than 1-100, A, B, C, D, F, or 0-4.0 if applicable. Show levels required for a passing grade. Predoctoral applicants must also provide scores for the Graduate Record Examination (GRE), if available. MD/PhD applicants should provide MCAT scores, if available.

Postdoctoral applicants: Using the chart provided, list by institution and year all undergraduate courses and graduate scientific and/or professional courses germane to the training sought under this award with grades. In the space following the chart, explain any marking system if other than 1-100, A, B, C, D, F, or 0-4.0 if applicable. Show levels required for a passing grade.

Predoctoral and postdoctoral candidates may be asked to send transcripts prior to award. Unless specified in a particular announcement (RFA/PA), do not include transcripts with the application.

## 4.6 Previous Research Experience (Form Page 5)

### 4.6.1 Prior and Current Kirschstein-NRSA Support (Individual or Institutional)

Item 22. Follow the instructions on the form. An individual cannot receive more than 5 years cumulative predoctoral Kirschstein-NRSA support and 3 years cumulative postdoctoral Kirschstein-NRSA support (the total of Institutional Grants and Individual Fellowships) without a waiver from the

NIH IC or AHRQ. The NIH ICs have different policies on waiving the statutory limits on support. Therefore, you must request a waiver from the probable funding IC or AHRQ before requesting a period of support that would exceed these limits.

Promptly report to the NIH IC to which this application is assigned or to AHRQ any additional NRSA support received while this application is pending.

### 4.6.2 Application(s) for Concurrent Support

Item 23. Check the appropriate box. If the candidate has applied or will be applying for other support that would run concurrently with the period covered by this application check “Yes” and include the type, dates, source(s) and amount. The candidate must promptly report to the NIH IC to which this application is assigned any support resulting from other such applications.

### 4.6.3 Title(s) of Thesis/Dissertation(s)

Item 24a. Self-explanatory. Applications for Predoctoral and Senior Fellowships should omit this item.

### 4.6.4 Dissertation Advisor or Chief of Service

Item 24b. Include name, title, department, and institution of this individual. If this individual is not submitting a reference, explain why not. Applications for Predoctoral and Senior Fellowships should omit this item.

### 4.6.5 Doctoral Dissertation and Other Research Experience

Item 25. Summarize in chronological order your research experience, including the areas studied and conclusions. Specify which areas were part of your thesis or dissertation and which were part of a previous postdoc project, if any. If you have no research experience, list other scientific experience. Do not list academic courses here. Do not exceed two pages.

**Unless otherwise instructed in a specific Funding Opportunity Announcement**, applicants for early (pre-dissertation) Predoctoral and Senior Fellowships should omit their doctoral dissertation, but should include any other research experience, if applicable. Advanced graduate students (ONLY) must also include a narrative of their doctoral dissertation (may be preliminary) and any other research experience. The information is required of advanced graduate students who have successfully completed their comprehensive examinations or the equivalent by the time of award and will be performing dissertation research.

## 4.7 Personal Data

Follow the instructions on the form. Place the form at the end of the signed original application after the Checklist. *Do not copy*. The Personal Data page applies only to the fellow.

# 5. Preparing the Research Training Plan

## 5.1 (Reserved)

## 5.2 (Reserved)

## 5.3 (Reserved)

## 5.4 Research Training Plan Format and Notice of Proprietary Information

### 5.4.1 Research Training Plan Format

**No Specific Form Page -** Use Continuation Page

The Research Training Plan consists of Items 1-21, as applicable. It should be self-contained and include sufficient information to evaluate the project, independent of any other document (e.g., previous application). Be specific and informative, and avoid redundancies. For grant writing tips, see http://grants.nih.gov/grants/grant_tips.htm.

This section should be well-formulated and presented in sufficient detail that it can be evaluated for both its research training potential and scientific merit. It is important that it be developed *in collaboration with your sponsor*, but it should be *written by you the applicant*.

**Page Limitations**

The Research Training Plan includes multiple subsections, some of which have page limits. Sections 2 through 5 of this section must not exceed 10 pages, including all tables graphs, figures, diagrams, and charts. Follow the format provided below.

**Use of URLs**

Unless otherwise specified in a solicitation, do not use Internet website addresses (URLs) to provide information because reviewers are not obligated to view the Internet sites. Moreover, reviewers are cautioned that they should not directly access an internet site (except to review publications cited in the Biographical Sketch or Progress Report Publication List) because this may compromise their anonymity.

**Other Materials**

Do not include photographs or other materials that are not printed directly on the application page in the body of the application. Pictures or other materials glued or taped into the application pages are incompatible with the duplication/scanning process.

PDF images of material such as electron micrographs or gels may be included in the Appendix; however, a photocopy of each must also be included within the page limitations of the Research Training Plan.

***Reference Letters for Resubmission Application***.

Applicants must resubmit three sealed reference letters with the application. See Reference Letter instructions for additional details.

### 5.4.2 Notice of Proprietary Information

Applicants are discouraged from submitting information considered proprietary unless it is deemed essential for proper evaluation of the application. However, when the application contains information that constitutes trade secrets, or information that is commercial or financial, or information that is confidential or privileged, identify the pages in the application that contain this information by marking those paragraphs or lines with an asterisk (*) in the left-hand margin and providing the page numbers before Item 2. Specific Aims, in the Research Training Plan.

When information in the application constitutes trade secrets, information that is commercial or financial, or information that is confidential or privileged, it is furnished to the Government in confidence with the understanding that such information shall be used or disclosed only for evaluation of this application. If an award is issued as a result of or in connection with the submission of this application, the Government shall have the right to use or disclose the information to the extent authorized by law. This restriction does not limit the Government's right to use the information if it is obtained without restriction from another source.

## 5.5 Contents of Research Training Plan

***1. Introduction (Resubmission Applications Only)***

All resubmission applications must include an Introduction of no more than one page that summarizes the substantial additions, deletions, and changes. The Introduction must also include responses to criticisms and issues raised in the summary statement for the previous application. Insert the Introduction just before the very beginning of the Research Training Plan.

Application processing may be delayed or the application may be returned if it does not comply with all of these requirements.

***2. Specific Aims***

List the broad, long-term objectives and the goal of the specific research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.

***3. Background and Significance***

Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance and health relevance of the research described in this application by relating the specific aims to broad, long-term objectives and to the **mission of the NIH IC or AHRQ**.

***4. Preliminary Studies/Progress Report***

***(a) Preliminary Studies***. Use this section to provide an account of preliminary studies, if any, that are pertinent to this application. This information will help reviewers and NIH staff evaluate your

experience and determine your competence to pursue the proposed project. It will also help demonstrate the utility of the proposed project as a training experience.

When applicable, provide a succinct account of published and unpublished results, indicating progress toward their achievement.

***(b) Progress Report for Competing Continuation Applications***. Competing Continuation applications for individual fellowships are rare. You should consult with your program official before preparing such an application. If you are submitting a Competing Continuation, a Progress Report must be provided. Provide the beginning and ending dates for the period covered since the project was last reviewed competitively. Summarize the previous application's specific aims and the importance of the findings. Include the complete references to appropriate publications and manuscripts accepted for publication (not part of the page limitations).

If the competing continuation application involves clinical research, then you must report on the enrollment of research subjects and their distribution by ethnicity/race and sex/gender.

See Part II, Section 4.3 for more detailed instructions on which Target and Enrollment Report or Table to use.

### *5. Research Design and Methods*

Describe the research design conceptual or clinical framework, procedures, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Describe any novel concepts, approaches, tools, or technologies for the proposed studies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. As part of this section, provide a tentative sequence or timetable for the project. Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised.

For Postdoctoral and Senior Fellowship applications, include any courses that you plan to take to support the research training experience.

### *6. Inclusion Enrollment Report (for RENEWAL applications only)*

In the rare instance that you are submitting a renewal application, and it involves clinical research, then you must report on the enrollment of research subjects and their distribution by ethnicity/race and sex/gender using the inclusion Enrollment Report of each protocol. (Not part of the page limitations of the Research Training Plan.)

### *7. Progress Report Publication List (for RENEWAL applications only)*

In the rare instance when you are submitting a renewal application, list the title and complete references to all appropriate publications, manuscripts accepted for publication, patents, and other printed materials that have resulted from the project since it was last reviewed competitively. (Not part of the page limitations of the Research Training Plan.)

### *8. Human Subjects Research*

If you have marked Item 9 on the face page of the application as "Yes" consult with your *sponsor* before completing this section and refer to Part II of the PHS 416-1, Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan. Human subjects requirements may apply even if you are obtaining specimens/data from collaborators or if you are subcontracting

the human research to another organization. For all research involving human subjects, a part of the peer review process will include careful consideration of protections from research risks, as well as the appropriate inclusion of women, minorities, and children. The Scientific Review Group (SRG) will assess the adequacy of safeguards of the rights and welfare of research participants, and the appropriate inclusion of women, minorities, and children, based on the information in the application. The evaluation of the inclusion plans will be factored into the overall score that the SRGs award for scientific and technical merit of the application. Much of the information on the protection of human subjects that you are required to provide in this section of the Fellowship application is identical to information that you will be required to provide for IRB review at your own institution.

**9. *Clinical* Trial**

If you have checked "yes" to item 9c.and this project involves a clinical trial refer to Part II of the 416-1 Part II, Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan for further details.

***10. Agency-Defined Phase III Clinical Trial***

If you have checked "yes" to item 9d.and this project involves a agency-defined phase III clinical trial refer to Part II of the 416-1 Part II, Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan for further details.

***11. Protection of Human Subjects***

Refer to Part II of the PHS 416-1 Part II, Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan if the proposed research will involve human subjects.

***12. Inclusion of Women and Minorities***

To determine if Inclusion of Women and Minorities applies to the application, see Part II Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan, Sections 4.2 and 5.6.

***13. Targeted/Planned Enrollment Table***

If this application involves the Inclusion of Women and Minorities, complete the Targeted/Planned Enrollment Table for each protocol; see Part II Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan, Section 4.3.

***14. Inclusion of Children***

To determine if Inclusion of Children applied to this application, see Part II Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan, Sections 4.4 and 5.7.

***15. Vertebrate Animals***

If vertebrate animals are involved in the project, address each of the five points below.

If all or part of the proposed research involving vertebrate animals will take place at alternate sites (such as project/performance or collaborating sites), identify those sites and describe the activities at those locations.

Although no specific page limitation applies to this section of the application, be succinct. Failure to address the following five points will result in the application being designated as incomplete and will be grounds for the PHS to defer the application from the peer review round. Alternatively, the application's priority score may be negatively affected.

The five points are as follows:

1. Provide a detailed description of the proposed use of the animals for the work outlined in the Research Design and Methods section. Identify the species, strains, ages, sex, and numbers of animals to be used in the proposed work.
2. Justify the use of animals, the choice of species, and the numbers to be used. If animals are in short supply, costly, or to be used in large numbers, provide an additional rationale for their selection and numbers.
3. Provide information on the veterinary care of the animals involved.
4. Describe the procedures for ensuring that discomfort, distress, pain, and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices, where appropriate, to minimize discomfort, distress, pain, and injury.
5. Describe any method of euthanasia to be used and the reason(s) for its selection. State whether this method is consistent with the recommendations of the American Veterinary Medical Association (AVMA) Guidelines on Euthanasia. If not, include a scientific justification for not following the recommendations.

If the involvement of animals is **indefinite**, provide an explanation and indicate when it is anticipated that animals will be used.

### *16. Select Agent Research*

Select Agents are hazardous biological agents and toxins that have been identified by DHHS or USDA as having the potential to pose a severe threat to public health and safety, to animal and plant health, or to animal and plant products. CDC maintains a list of these agents; see http://www.cdc.gov/od/sap/docs/salist.pdf.

If the activities proposed in the application involve only the use of a strain(s) of Select Agents which has been excluded from the list of select agents and toxins as per 42 CFR 73.4(f)(5), the Select Agent requirements do not apply. Use this section to identify the strain(s) of the Select Agent that will be used and note that it has been excluded from this list. The CDC maintains a list of exclusions at http://www.cdc.gov/od/sap/sap/exclusion.htm.

If the strain(s) is not currently excluded from the list of select agents and toxins but you have applied or intend to apply to DHHS for an exclusion from the list, use this section to indicate the status of the request or the intent to apply for an exclusion and provide a brief justification for the exclusion.

If any of the activities proposed in the application involve the use of Select Agents at any time during the proposed project period, either at the applicant organization or at any other Project/Performance Site, address the following three points for each site at which Select Agent research will take place. Although no specific page limitation applies to this section, be succinct.

1. Identify the Select Agent(s) to be used in the proposed research.
2. Provide the registration status of all entities* where Select Agent(s) will be used.

- If the Project/Performance Site(s) is a foreign institution, provide the name(s) of the country or countries where Select Agent research will be performed.

*An "entity" is defined in 42 CFR 73.1 as "any government agency (Federal, State, or local), academic institution, corporation, company, partnership, society, association, firm, sole proprietorship, or other legal entity."

3. Provide a description of all facilities where the Select Agent(s) will be used.

   - Describe the procedures that will be used to monitor possession, use and transfer of Select Agent(s).

   - Describe plans for appropriate biosafety, biocontainment, and security of the Select Agent(s).

If you are responding to a specific Funding Opportunity Announcement (e.g., PA or RFA), address any requirements specified by the solicitation.

Reviewers will assess the information provided in this section, and any questions associated with Select Agent research will need to be addressed prior to award.

***17. Bibliography and References Cited*** (formerly Literature Cited)

Provide a bibliography of any references cited in the description of the Project Summary and Relevance (Form Page 2). Each reference must include names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Follow scholarly practices in providing citations for source materials relied upon in preparing any section of the application.

*The references should be limited to relevant and current literature.* While there is not a page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research.

***18. Resource Sharing***

NIH considers the sharing of unique research resources developed through NIH-sponsored research an important means to enhance the value and further the advancement of the research. When resources have been developed with NIH funds and the associated research findings published or provided to NIH, it is important that they be made readily available for research purposes to qualified individuals within the scientific community.

(a) *Data Sharing Plan*: Investigators seeking $500,000 or more in direct costs in any year are expected to include a brief 1-paragraph description of how final research data will be shared, or explain why data-sharing is not possible. Specific FOAs may require that all applications include this information regardless of the dollar level. Applicants are encouraged to read the specific opportunity carefully and discuss data-sharing plans with their program contact at the time they negotiate an agreement with the Institute/Center (IC) staff to accept assignment of their application. See Data-Sharing Policy or http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-032.html.

(b) *Sharing Model Organisms*: Regardless of the amount requested, all applications where the development of model organisms is anticipated are expected to include a description of a specific plan for sharing and distributing unique model organisms or state appropriate reasons why such sharing is restricted or not possible. See Sharing Model Organisms Policy, and NIH Guide NOT-OD-04-042.

(c) *Genome-Wide Association Studies (GWAS):* Regardless of the amount requested, applicants seeking funding for a genome-wide association study are expected to provide a plan for submission of GWAS data to the NIH-designated GWAS data repository, or provide an appropriate explanation why submission to the repository is not possible. GWAS is defined as any study of genetic variation across the entire genome that is designed to identify genetic associations with observable traits (such as blood pressure or weight) or the presence or absence of a disease or condition. For further information see Policy for Sharing of Data Obtained in NIH Supported or Conducted Genome-Wide Association Studies, NIH Guide NOT-OD-07-088, and http://grants.nih.gov/grants/gwas/.

### *19. Respective Contributions*

Describe the collaborative process between you and your sponsor/co-sponsor in the development, review, and editing of this research training plan. Do not include the respective roles in accomplishing the proposed research (limit to one page).

### *20. Selection of Sponsor and Institution*

1. Explain why the sponsor, co-sponsor (if any), and institution were selected to accomplish the research training goals. If the proposed research training is to take place at a site other than the sponsoring organization, provide an explanation here.
2. Doctorate or Current Institution. Since research training is expected to broaden a fellow's perspective, postdoctoral applicants requesting training at either their doctorate institution or at the institution where they have been training for more than a year must explain why further training at that institution would be valuable. Individuals applying for Senior Fellowships who are requesting training at the institution at which they are employed should provide a similar explanation. Ordinarily, the new training value of an environment diminishes as your association there lengthens. If you are staying at the same institution, explain briefly.
3. Foreign Institution. If you are proposing a research training experience at a foreign institution, show that the foreign institution and sponsor offer special opportunities for training that are not currently available in the United States. Key factors in the selection of a foreign institution should be described. If applicable, the need for and level of proficiency in reading, speaking, and comprehending the foreign language should be addressed.

### *21. Responsible Conduct of Research*

Note: No award will be made if an application lacks this component.

Every fellow must receive instruction in the responsible conduct of research (http://grants.nih.gov/grants/guide/notice-files/not92-236.html). Applications must include the sponsoring institution's plans to provide and the candidate's plans for obtaining instruction in the responsible conduct of research, including the rationale, subject matter, appropriateness, format, frequency and duration of instruction. The amount and nature of faculty participation must be described. The plan will be discussed after the overall determination of merit, so that the review panel's evaluation of the plan will not be a factor in the determination of the priority score. The plan will be judged as acceptable or unacceptable. The acceptability of the plan will be described in an administrative note of the summary statement. Regardless of the priority score, an application with an unacceptable plan will not be funded until the applicant provides a revised acceptable plan. Staff in the NIH awarding component will judge the acceptability of the revised plan.

In most cases, the applicant's plan for Responsible Conduct of Research will include participation in an established course or seminar series, as either an instructor or a student (for-credit or non-credit). If the institution does not offer a course or seminar series that fulfills the Responsible Conduct of Research requirement, the applicant may lead or participate in a discussion group in lieu of a formal activity. If neither option is possible, the applicant may obtain on-line instruction in Responsible

Conduct of Research. Suggested topics for courses, seminars, and discussion groups include conflict of interest, responsible authorship, policies for handling misconduct, data management, data sharing, policies regarding the use of animals and/or human subjects, and institutional vs. individual responsibilities for scientific integrity. Courses, seminars, and discussion groups taken to fulfill the Responsible Conduct of Research requirement need not cover all of these topics but should include a majority of them.

Attach a description, limited to no more than one page, of plans for obtaining instruction in the responsible conduct of research. This must include the rationale, subject matter, appropriateness, format, frequency and duration of instruction. The amount and nature of faculty participation must be described.

## 5.6 Checklist

### A. Type of Application

Check applicable.

### B. Assurances/Certifications

Each application to the PHS requires that the policies, assurances, and certifications provided in Part III and listed in Part I, under Item 14 of the Face Page, be verified by the signature of the official signing for the applicant organization on the Face Page of the application. If unable to certify compliance, where applicable, provide an explanation.

### C. Kirschstein-NRSA Senior Fellowship Applicants

Section to be completed only by Senior Fellowships applicants, providing requested salary/stipend budgetary information. Predoctoral and postdoctoral applicants should leave this section blank.

### D. Tuition and Fees

Sections to be completed by pre- and postdoctoral applicants, providing requested budgetary information as applicable. Senior Fellowship applicants should leave this section blank.

## 5.7 Appendix

Do not use the appendix to circumvent the page limitations of the Research Training Plan. Graphs, diagrams, tables, and charts should be included in the body of the Research Training Plan unless a PDF file is necessary to show detail. Not all grant mechanisms allow publications to be included in the appendix. When publications are allowed, a limit of 3 publications, which are not publicly available, will be considered in the initial peer review (see below for further details and check the FOA for any specific instructions). A summary listing all of the items included in the appendix is encouraged, but not required. When including a summary, it should be the first file on the CD. Applications that do not follow the appendix requirements may be delayed in the review process.

Five identical CDs containing all appendix material must be submitted in the same package with the application. When preparing CDs:

- Use PDF format. Where possible, applicants should avoid creating PDF files from scanned documents. NIH recommends producing the documents electronically using text or work-

processing software and then converting to PDF. Scanned documents are generally of poor quality and difficult to read.

- Label each disk with the Applicant Fellow name and application title.
- If burning CD-ROM disks on a Mac, select the ISO 9660 format.
- Do not use compression techniques for the electronic files.
- Do not use password protection, encryption, digital signature and/or digital certification in the PDF files.

The following materials may be included in the appendix to New, Revision, Renewal and Resubmission applications:

- Up to 3 publications of the following types. In each case include the entire document:
    - Manuscripts and/or abstracts accepted for publication but not yet published.
    - Published manuscripts and/or abstracts where a free, online, publicly available journal link is not available.
    - Patents directly relevant to the project.

  Do not include unpublished theses or abstracts/manuscripts submitted, but not yet accepted, for publication.
- Surveys, questionnaires, and other data collection instruments, clinical protocols, and informed consent documents.
- Color images of gels, micrographs, etc., provided that a photocopy (may be reduced in size) is also included within the 10-page limit of Items A-D of the Research Training Plan. No images may be included in the appendix that are not also represented within the Research Training Plan.
- For materials that cannot be submitted on CD (e.g., medical devices, prototypes), applicants should contact the Scientific Review Officer for instructions following notification of assignment of the application to a study section. Applicants are encouraged to be as concise as possible and submit only information essential for the review of the application.

Publications that are publicly accessible must not be included in the appendix. For such publications, the URL or PMC submission identification numbers along with the full reference should be included as appropriate in the Bibliography and References Cited/Progress Report Publication List section of the Research Training Plan, and/or in the Biographical Sketch.

## 5.8 Sponsor and Co-Sponsor Information (Application Section II)

*All the information in this section is to be completed by the sponsor and any co-sponsor (if any)*.

**Sponsor's and Co-Sponsor's Biographical Sketch Format Page**

See Sponsor's and Co-Sponsor's Biographical Sketch Sample.

The Biographical Sketch format used by the Sponsor and Co-Sponsor (if any) is identical to the Biographical Sketch Format Page in the Application for Public Health Service Grant (PHS 398). Therefore the PHS 398 Format Page may be used in lieu of the Format Page provided in the 416-1. If the PHS 398 page is used, place the name of the fellowship applicant in the upper right corner in lieu of the Principal Investigator/Program Director. *The Biographical Sketch for the Sponsor and Co-Sponsor (if any) may not exceed four pages for each person. This 4-page limit includes the table at the top of the first page.*

If this application involves a co-sponsor who has a substantial involvement and/or critical role in the Research Training Proposal, include their Biographical Sketch; a letter of commitment from that individual; and required information for the items addressed below.

**Sponsor's and Co-Sponsor's Information**

**No Specific Form Page - Use** Continuation Page

Create a heading at the top of the first page titled "Section II--Sponsor and Co-Sponsor Information".

Complete these items as comprehensively as possible so that a meaningful evaluation of the training environment can be made by the reviewers. Use continuation pages as needed.

**1. Research Support Available**

In a table, list all current and pending research and research training support specifically available to the applicant for this particular training experience. Include funding source, complete identifying number, title of the research or training program, and name of the principal investigator, dates, and amount of the award. Include this information for any co-sponsor as well.

**2. Sponsor's/Co-Sponsor's Previous Fellows/Trainees**

Give the total number of predoctoral and postdoctoral individuals previously sponsored. Select five that are representative and, for those five, provide their present employing organizations and position titles or occupations. Include this information for any co-sponsor as well.

**3. Training Plan, Environment, Research Facilities**

Describe the research training plan that you have developed specifically for the applicant/fellow. Include items such as classes, seminars, and opportunities for interaction with other groups and scientists. Describe the research environment and available research facilities and equipment. Indicate the relationship of the proposed research training to the applicant's career goals. Describe the skills and techniques that the applicant will learn. Relate these to the applicant's career goals.

**4. Number of Fellows/Trainees to be Supervised During the Fellowship**

Indicate whether pre- or postdoctoral. Include this information for any co-sponsor as well.

**5. Applicant's Qualifications and Potential for a Research Career**

Self-explanatory.

## 5.9 Letters of Reference (Application Section III)

*At least three completed, sealed references must be submitted with the application*. Referees should complete the form and return it in a sealed envelope to you as soon as possible. Remind them that reference reports should be provided on the form and any continuation pages. You are asked not to open the reference envelopes to ensure the confidentiality of such information. The sealed envelopes must be attached to the original application. If you are *submitting a resubmission application or a competing continuation application, you also must submit three sealed reference letters*.

Your references should be carefully selected. Only those individuals who can make the most meaningful comments about your qualifications for a research career should be used. *The sponsor of this application cannot be counted as a reference. The sponsor's recommendation is included as part of the application (See Sponsor/Co-Sponsor Information)*. Whenever possible, select at least one referee who is not in your current department. If not submitting a reference from the dissertation advisor or chief of service, provide an explanation in Item 24b on Form Page 5. For postdoctoral applications, references from graduate or medical school are preferred over those from undergraduate school.

Request reference reports only from individuals who will be able to return them in time for submission of the application. Consider any factor (e.g., illness or extended vacation) that might cause an inordinate delay. Give these reference forms to the referees well in advance of the application submission date.

Failure to provide references may delay processing of your application or may result in the application being returned to you without review.

# 6. The Peer Review Process

A description of what happens to your individual fellowship application after it is received for peer review can be found at the following location: http://grants.nih.gov/grants/peer_review_process.htm. Most applications submitted to the NIH or AHRQ will be reviewed through a two-tier system. The first level of review will be performed by a Scientific Review Group (SRG), often called a study section or review committee. The purpose of the SRG is to evaluate the scientific and technical merit of applications. The SRG does not make funding decisions. Additional detailed information on review procedures for scientific review group meetings is located at: http://www.csr.nih.gov/guidelines/proc.pdf. The complete listing of Rosters for NIH Scientific Review Groups (SRGs) is available at http://era.nih.gov/roster/index.cfm.

SRG members will be instructed to evaluate research applications by addressing four review criteria (see below) and assigning a single, global score for each application. *Requests for Applications (RFAs) and other types of grants may have different and/or additional review criteria.*

As part of the initial merit review, all applicants will receive a written critique, called a Summary Statement. Predoctoral fellowship Summary Statements represent a combination of the reviewers' written comments, the Scientific Review Officer's resume/summary of discussion, the recommendations of the study section, and administrative notes of special considerations.

Staff members within the assigned NIH IC or ARHQ provide a second level of review.

## 6.1 Individual Fellowship Application Review Criteria

The criteria for reviewing Individual Fellowship applications focus on four main components: the candidate, the sponsor/training environment, the research proposal, and the training potential. Since each application is considered on an individual basis, these four areas do not necessarily receive equal weight in the SRG's consideration, as reflected by the priority score. Within each of the four main areas, the following is given consideration:

***Candidate***: The candidate's previous academic and research performance and the potential to become an important contributor to biomedical, behavioral, or clinical science.

***Sponsor and Training Environment***: The quality of the training environment and the qualifications of the sponsor as a mentor within the proposed research training experience.

***Research Proposal***: The merit of the scientific proposal and its relationship to the candidate's career plans.

***Training Potential***: The value of the proposed fellowship experience as it relates to the candidate's needs in preparation for a career as an independent researcher.

**In addition to the above criteria, the following items will be considered in the determination of scientific merit and the priority score.**

***Protection of Human Subjects***: In conducting peer review for scientific and technical merit, SRGs also will evaluate the involvement of human subjects and proposed protections from research risk relating to their participation in the proposed non-exempt research training plan according to the following five review criteria: (1) Risk to subjects, (2) Adequacy of protection against risks (3) Potential

benefits of the proposed research to the subjects and others; (4) Importance of the knowledge to be gained; and (5) Data and safety monitoring for clinical trials.

When human subjects are involved in research that involves one of the six categories of research that are exempt under 45 CFR Part 46, the SRG will evaluate the justification for the exemption and (1) Characteristics of the population, and (2) Sources of Materials.

***Inclusion of Women, Minorities, and Children***: When human subjects are involved in the proposed clinical research, the SRG will also evaluate the proposed plans for inclusion of minorities and members of both sexes/genders, as well as the inclusion of children in clinical research, as part of the scientific assessment of the Research Proposal.

***Vertebrate animals***: As part of the peer review process, the SRG will evaluate the proposed involvement and protection of vertebrate animals as part of the scientific assessment of the Research Proposal and Sponsor and Environment criteria and according to the following five points: (1) detailed description of the proposed use of the animals; (2) justification for the use of animals and for the appropriateness of the species and numbers proposed; (3) adequacy of proposed veterinary care; (4) procedures for limiting pain and distress to that which is unavoidable; and (5) methods of euthanasia.

***Consideration Outside of the Priority Score***

***Responsible Conduct of Research***: While not a factor in the scientific merit or priority score, reviewers will also access the adequacy of the research training plan in Responsible Conduct of Research.

# 7. Fields of Training

**1000 I. PREDOMINANTLY NON-CLINICAL OR LAB-BASED RESEARCH TRAINING**

**1100 BIOCHEMISTRY**
1110 Biological Chemistry
1120 Bioenergetics
1130 Enzymology
1140 Metabolism

**1200 BIOENGINEERING**
1210 Bioelectric/Biomagnetic
1220 Biomaterials
1230 Biomechanical Engineering
1240 Imaging
1250 Instrumentation and Devices
1260 Mathematical Modeling
1270 Medical Implant Science
1280 Nanotechnology
1290 Rehabilitation Engineering
1310 Tissue Engineering

**1400 BIOPHYSICS**
1410 Kinetics
1420 Spectroscopy
1430 Structural Biology
1440 Theoretical Biophysics

**1500 BIOTECHNOLOGY**
1510 Applied Molecular Biology
1520 Bioprocessing and Fermentation
1530 Metabolic Engineering

**1600 CELL AND DEVELOPMENTAL BIOLOGY**
1610 Cell Biology
1620 Developmental Biology

**1700 CHEMISTRY**
1710 Analytical Chemistry
1720 Bioinorganic Chemistry
1730 Bioorganic Chemistry
1740 Biophysical Chemistry
1750 Medicinal Chemistry
1760 Physical Chemistry
1770 Synthetic Chemistry

**1900 ENVIRONMENTAL SCIENCES**

**2000 GENETICS**
2010 Behavioral Genetics
2020 Developmental Genetics
2030 Genetic Epidemiology
2040 Genetics of Aging
2050 Genomics
2060 Human Genetics
2070 Molecular Genetics
2080 Population Genetics

**2200 IMMUNOLOGY**
2210 Asthma and Allergic Mechanisms
2220 Autoimmunity
2230 Immunodeficiency
2240 Immunogenetics
2250 Immunopathology
2260 Immunoregulation
2270 Inflammation
2280 Structural Immunology
2290 Transplantation Biology
2310 Vaccine Development

**2400 MICROBIOLOGY AND INFECTIOUS DISEASES**
2410 Bacteriology
2420 Etiology
2430 HIV/AIDS
2440 Mycology
2450 Parasitology
2460 Pathogenesis of Infectious Diseases
2470 Virology

**2600 MOLECULAR BIOLOGY**

**2800 NEUROSCIENCE**
2810 Behavioral Neuroscience
2820 Cellular neuroscience
2830 Cognitive neuroscience
2840 Communication Neuroscience
2850 Computational Neuroscience
2860 Developmental Neuroscience
2870 Molecular Neuroscience
2880 Neurochemistry
2890 Neurodegeneration
2910 Neuropharmacology
2920 Systems/Integrative Neuroscience

**3100 NUTRITIONAL SCIENCES**

**3200 PHARMACOLOGY**
3210 Molecular Pharmacology
3220 Pharmacodynamics
3230 Pharmacogenetics
3240 Toxicology

**3300 PHYSIOLOGY**
3310 Aging
3320 Anesthesiology (basic science)
3330 Endocrinology (basic science)
3340 Exercise Physiology (basic science)
3350 Integrative Biology
3360 Molecular Medicine
3370 Physiological Optics
3380 Reproductive Physiology

**3500 PLANT BIOLOGY**

**3600 PSYCHOLOGY, NON-CLINICAL**
3610 Behavioral Communication Sciences
3620 Behavioral Medicine (non-clinical)
3630 Cognitive Psychology
3640 Developmental and Child Psychology
3650 Experimental & General Psychology
3660 Mind-Body Studies
3680 Neuropsychology
3690 Personality and Emotion
3710 Physiological Psychology & Psychobiology
3720 Psychology of Aging
3730 Psychometrics
3740 Psychophysics
3750 Social Psychology

**3900 PUBLIC HEALTH**
3910 Disease Prevention and Control
3920 Epidemiology
3930 Health Economics
3940 Health Education
3950 Health Policy Research
3960 Health Services Research
3970 Occupational and Environmental Health

**4100 RADIATION, NON-CLINICAL**
4110 Nuclear Chemistry
4120 Radiation Physics
4130 Radiobiology

**4200 SOCIAL SCIENCES**
4210 Anthropology
4220 Bioethics
4230 Demography & Population Studies
4240 Economics
4250 Education
4260 Language and Linguistics
4270 Sociology

**4400 STATISTICS AND/OR RESEARCH METHODS AND/OR INFORMATICS**
4410 Biostatistics and/or Biometry
4420 Bioinformatics
4430 Computational Science
4440 Information Science
4450 Clinical Trials Methodology

**4600 TRAUMA, NON CLINICAL**

**5000 OTHER, Predominantly Non-Clinical or Lab-Based Research Training**

**6000 II. PREDOMINANTLY CLINICAL RESEARCH TRAINING (can include any degree):**

**6100 ALLIED HEALTH**
6110 Audiology
6120 Community Psychology
6130 Exercise Physiology (clinical)
6140 Medical Genetics
6150 Occupational Health
6160 Palliative Care
6170 Physical Therapy
6180 Pharmacy
6190 Social Work
6210 Speech-language Pathology
6211 Rehabilitation

**6400 DENTISTRY**

**6500 CLINICAL DISCIPLINES**
6510 Allergy
6520 Anesthesiology
6530 Behavioral Medicine (clinical)
6540 Cardiovascular Diseases
6550 Clinical Laboratory Medicine
6560 Clinical Nutrition
6570 Clinical Pharmacology
6580 Complementary and Alternative Medicine
6590 Clinical Psychology
6610 Connective Tissue Diseases
6620 Dermatology
6630 Diabetes
6640 Gastroenterology
6650 Endocrinology
6660 Immunology

6670 Gene Therapy (clinical)
6680 Geriatrics
6690 Hematology
6710 HIV/AIDS
6820 Infectious Diseases
6830 Liver Diseases
6840 Metabolic Diseases
6850 Nephrology
6860 Neurology
6870 Ophthalmology
6880 Nuclear Medicine
6890 OB-GYN
6910 Oncology
6920 Orthopedics
6930 Otorhinolarynology
6940 Preventive Medicine
6950 Radiation, Interventional
6960 Pulmonary Diseases
6970 Radiology, Diagnostic
6980 Rehabilitation Medicine
6990 Psychiatry
7110 Surgery
7120 Trauma
7130 Urology

**7300 PEDIATRIC DISCIPLINES**
7310 Pediatric Endocrinology
7320 Pediatric Hematology
7330 Pediatric Oncology
7340 Pediatric, Prematurity & Newborn

**7500 NURSING**

**7700 VETERINARY MEDICINE**

**8000 OTHER, Predominantly Clinical Research Training**

# 8. KIRSCHSTEIN-NRSA Payback Assurance

Section 487 of the Public Health Service Act, as, amended (42 USC 288), and implementing regulations (42 CFR Part 66) require satisfactory assurance from a prospective recipient of a Kirschstein-NRSA Individual Fellowship that, in the first 12 months of Kirschstein-NRSA postdoctoral support, he or she will meet the following service requirement. Kirschstein-NRSA predoctoral fellows or other fellows who have already had 12 months of Kirschstein-NRSA postdoctoral support do not incur a service payback obligation.

Kirschstein-NRSA Individual Fellowships will be governed by the service payback requirements articulated in the National Research Service Award Guidelines for Individual Awards and Institutional Grants. These guidelines can be found in the NRSA portion of the most recent version of the NIH Grants Policy Statement found at: http://grants.nih.gov/grants/policy/policy.htm#gps. Applicants accepting an approved Kirschstein-NRSA Individual Fellowship agree to the following assurance:

***I. Service Requirement*** - In accepting a Ruth L. Kirschstein National Research Service Award to support my postdoctoral research training, I understand that my first 12 months of Kirschstein-NRSA Individual Fellowship support for postdoctoral research training carry with it a payback obligation. I hereby agree to engage in a month of health-related research, health-related research training, health-related teaching, and/or health-related activities for each month I receive a Kirschstein-NRSA Individual Fellowship for postdoctoral research training up to and including 12 months. If I receive a Kirschstein-NRSA Individual Fellowship for postdoctoral research training for more than 12 months, I agree that the 13th month and each subsequent month of Kirschstein-NRSA-supported postdoctoral research training will satisfy a month of my payback obligation incurred in the first 12 months. This service shall be initiated within 2 years after the end of Kirschstein-NRSA support. The health-related research, teaching, and/or activities shall be on a continuous basis and shall average more than 20 hours per week of a full work year.

***II. Financial Payback Provisions*** - I understand that if I fail to undertake or perform such service in accordance with Section I above, the United States will be entitled to recover from me an amount determined in accordance with the following formula:

$$A = F [(t-s)/t]$$

where "A" is the amount the United States is entitled to recover; "F" is the sum of the total amount paid to me under the initial 12 months of my postdoctoral Ruth L. Kirschstein National Research Service Award support; "t" is the total number of months in my service obligation; and "s" is the number of months of such obligation served.

Except as provided in Section III below, any amount the United States is entitled to recover from me shall be paid within the 3-year period beginning on the date the United States becomes entitled to recover such amount. The United States becomes entitled to recover such amount 2 years after termination of my Ruth L. Kirschstein National Research Service Award support if I do not engage in acceptable service payback activities in accordance with Section I. If I elect to engage in financial repayment before the end of the 2-year period, the United States becomes entitled to recover such amount on the date of my election. Interest on the amount begins on the date the United States becomes entitled to recover such amount and is at the rate fixed by the Secretary of the Treasury after taking into consideration private consumer rates prevailing on that date. I understand that I will be allowed an initial 30-day interest-free period in which to fully pay such amount, and that I may prepay any outstanding balance after that period to avoid additional interest. I further understand that I

will be subject to authorized debt collection action(s) (including any accrued interest and late fees) should I fail to comply with the payback provisions of this Section II.

***III. Conditions for Break in Service, Waiver, and Cancellation*** - I hereby understand that the Secretary of Health and Human Services:

A. May extend the period for undertaking service, permit breaks in service, or extend the period for repayment, if it is determined that:

1. Such an extension or break in service is necessary to complete my clinical training or to participate in a NIH Loan Repayment Program;
2. Completion would be impossible because of temporary disability; or
3. Completion would involve a substantial hardship and failure to extend such period would be against equity and good conscience;

B. May waive my obligation, in whole or in part, if it is determined that:

1. Fulfillment would be impossible because I have been permanently or totally disabled; or
2. Fulfillment would involve a substantial hardship and the enforcement of such obligation would be against equity and good conscience;

C. Will, in the event of my death, cancel any obligation incurred under this payback agreement.

***IV. Termination Notice-Annual Report of Employment-Change of Address and/or Name*** - I agree to complete and submit a termination notice immediately upon completion of support. Thereafter, on an annual basis I agree to complete and submit all Payback Activities Certification forms sent to me by the National Institutes of Health or the Agency for Healthcare Research and Quality concerning post-award activities, and agree to keep those agencies advised of any change of address and/or name until such time as my total obligation is fulfilled.

***V. Program Evaluation*** - I understand that I also may be contacted from time to time, but no more frequently than once every 2 years, after the end of this award to determine how the training obtained has influenced my career. Any information thus obtained would be used only for statistical purposes and would not identify me individually.

***VI. Certification*** - By signing the certification block on the application form, I certify that I have read and understood the requirements and provisions of this assurance and that I will abide by them if an award is made.

# PART II

# Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan

# 1. Introduction

A Protection of Human Subjects section of the Research Training Plan is required for all applications submitted using the PHS 416-1 instructions and forms. The information provided in the section on Protection of Human Subjects should be consistent with the information provided on the face page of the application.

For all research involving human subjects, the Scientific Review Group (SRG) will assess the adequacy of protections for research participants against research risks, and the appropriate inclusion of women, minorities, and children, based on the information provided in the application.

To assist in preparing the section on Protection of Human Subjects, six possible scenarios are provided in Section 2 below. All research projects will fall into one of these six scenarios. Determine which scenario the proposed research falls into, then go to the specific instructions applicable to that scenario in Section 3. Where appropriate, Section 3 provides instructions on addressing the Inclusion of Women and Minorities, the Targeted/Planned Enrollment Table, and the Inclusion of Children (item E. of the Research Training Plan). All definitions related to human subjects research are linked to text found in Part III.3 under Human Subjects Research Definitions and Terms. Section 5 of this Part includes descriptions of and links to the DHHS Human Subjects Protections regulations and NIH policies that apply to clinical research.

# 2. Scenarios

### Scenario A. No Human Subjects Research

If no human subjects research is proposed in the application, you will have designated "No" in Item 4. on the PHS 416-1 face page, and you should provide an explanation or statement to that effect in the Human Subjects section.

See the instructions for Scenario A.

### Scenario B. Non-Exempt Human Subjects Research

If research involving human subjects is anticipated to take place under the award, you will have designated "Yes" in Item 9 on the PHS 416-1 face page. In the Protection of Human Subjects section of the Research Training Plan, you must provide sufficient information for reviewers to determine that the proposed research meets (1) the requirements of the DHHS regulations to protect human subjects from research risks (45 CFR Part 46), and (2) the requirements of NIH policies on inclusion of women, minorities, and children. Research involving a clinical trial will fall under either Scenario E or F below.

See the instructions for Scenario B.

### Scenario C. Exempt Human Subjects Research

If **all** of the proposed research meets the criteria for one or more of the exemptions from the requirements in the DHHS regulations (46.101(b)), "yes" should be designated in item 9 and in item 9a on the PHS 416-1 face page. In the section on Protection of Human Subjects in the Research Training Plan, provide a justification for the exemption(s) containing sufficient information about the

involvement of the human subjects to allow a determination by peer reviewers and NIH staff that claimed exemption(s) is/are appropriate.

The PHS will make a final determination as to whether the proposed activities are covered by the regulations or are in an exempt category, based on the information provided in the Research Training Plan. When in doubt, consult with the Office for Human Research Protections (OHRP), Department of Health and Human Services by accessing their website http://www.hhs.gov/ohrp/ for guidance and further information.

The exemptions appear in Part III under Human Subjects Research Definitions and Terms.

See the instructions for Scenario C.

**Scenario D. Delayed-Onset Human Subjects Research**

If human subjects research is anticipated within the period of the award but plans for involvement of human subjects cannot be described in the application as allowed by the DHHS regulations (45 CFR Part 46.118), you will have designated "Yes" in Item 9. on the PHS 416-1 face page. In the section on Protection of Human Subjects in the Research Training Plan, you should either include an explanation of anticipated protections for human subjects or an explanation of why protections cannot be described.

Examples of delayed-onset of human subjects research include:

- Human subjects research is dependent upon the completion of animal or other studies; or
- Human subjects research protocols to be included will undergo an independent decision-making process (often defined by a FOA).

See instructions for Scenario D.

**Scenario E. Human Subjects Research Involving a Clinical Trial**

If research involving human subjects is anticipated to take place under the award, and you intend to conduct a clinical trial during the project period, you will have designated "Yes" in Item 9 on the PHS 416-1 face page, "No" in Item 9a on the PHS 416-1 face page, and "Yes" in Item 9c on the PHS 416-1 face page.

In the section on Protection of Human Subjects in the Research Training Plan, you must provide sufficient information for reviewers to determine that the proposed research meets:

1) the requirements of the DHHS regulations to protect human subjects from research risks (45 CFR Part 46);
2) NIH policy requirements for Data and Safety Monitoring for Clinical Trials;
3) the ClinicalTrials.gov requirements if applicable;
4) the requirements of NIH policies on inclusion of women, minorities, and children; and
5) the requirements of NIH policy on reporting race and ethnicity data for subjects in clinical research.

See instructions for Scenario E.

**Scenario F. Human Subjects Research Involving an NIH-Defined Phase III Clinical Trial**

If research involving human subjects is anticipated to take place under the award, and you intend to conduct an NIH-defined Phase III clinical trial during the project period, you will have designated "Yes" in Item 9 on the PHS 416-1 face page, "No" in Item 9a on the PHS 416-1 face page, and "Yes" in Item 9d on the PHS 416-1 face page. In the section on Protection of Human Subjects in the Research Training Plan, you must provide sufficient information for reviewers to determine that the proposed research meets:

1) the requirements of the DHHS regulations to protect human subjects from research risks (45 CFR Part 46);
2) NIH policy requirements for Data and Safety Monitoring for Clinical Trials;
3) the ClinicalTrilas.gov requirements if applicable;
4) the requirements of NIH policies on inclusion of women, minorities, and children;
5) additional Requirements for NIH-defined Phase III clinical trials; and
6) the requirements of NIH policy on reporting race and ethnicity data for subjects in clinical research.

See instructions for Scenario F.

# 3. Instructions for Preparing the Section on Protection of Human Subjects

**Scenario A. No Human Subjects Research Proposed**

**Criteria**

| | |
|---|---|
| Human Subjects Research | No |
| Exemption Claimed | No |
| Clinical Trial | N/A |
| NIH-Defined Phase III Clinical Trial | N/A |

**Instructions and Required Information**

In the application narrative, create a heading labeled "Protection of Human Subjects" and include the following statement below the heading: "No Human Subjects Research is proposed in this application."

If proposed studies using coded human data or biospecimens do not involve human subjects as described in the OHRP Guidance on Research Involving Coded Private Information or Biological Specimens (http://www.hhs.gov/ohrp/humansubjects/guidance/cdebiol.htm), provide an explanation of why the proposed studies do not constitute research involving human subjects.

The explanation could include: a description of the source of the data/biospecimens; the role(s) of providers of the data/biospecimens in the proposed research; and the manner by which the privacy of research participants and confidentiality of data will be ensured.

Research that does not involve intervention or interaction with living individuals, or identifiable private information, is not human subjects research (see Definitions in Part III.3).

Research that only proposes the use of cadaver specimens is not human subjects research because human subjects are defined as "living individuals." The use of cadaver specimens is not regulated by 45 CFR Part 46, but may be governed by other Federal, State or local laws.

**Scenario B. Non-Exempt Human Subjects Research**

**Criteria**

| | |
|---|---|
| Human Subjects Research | Yes |
| Exemption Claimed | No |
| Clinical Trial | No |
| NIH-Defined Phase III Clinical Trial | No |

**Instructions and Required Information**

Although no specific page limitation applies to this section of the application, be succinct.

In the application narrative, create a section entitled "Protection of Human Subjects" and create a subheading for each of the following items.

Follow the instructions that are identified for each of the following topics and provide the information that is requested:

Protections for Human Subjects - Section 4.1 - 4.1.4

Inclusion of Women and Minorities - Section 4.2

Targeted/Planned Enrollment Table - Section 4.3

Inclusion of Children - Section 4.4

If the research involves collaborating sites, provide the information identified above for each participating site.

**Scenario C: Human Subjects Research Claiming Exemption 1, 2, 3, 4, 5, or 6**

**Criteria**

| | |
|---|---|
| Human Subjects Research | Yes |
| Exemption Claimed | 1, 2, 3, 4, 5, or 6 |

| | |
|---|---|
| Clinical Trial | Yes or No |
| NIH-Defined Phase III Clinical Trial | No |

**Instructions and Required Information**

Although no specific page limitation applies to this section of the application, be succinct. The exemptions appear in Part III under Human Subjects Research Definitions and Terms.

Although the research may be exempt from the DHHS regulatory requirements, it is still research involving human subjects and the application must follow the instructions that are identified for each of the following topics and provide the information that is requested.

In the application narrative, create a heading entitled “Protection of Human Subjects” and include the following statement below the heading: “This Human Subjects Research falls under Exemption(s) … .”

Follow the instructions that are identified for each of the following topics and provide the information that is requested:

Justification for Claimed Exemption(s):

In this section, identify which exemption(s) (1, 2, 3, 4*, 5, or 6) you are claiming. Justify why the research meets the criteria for the exemption(s) that you have claimed.

If the research will include a clinical trial, even if exempt, include a Data and Safety Monitoring Plan – Section 4.1.5, and address the ClinicalTrials.gov requirements if applicable – Section 4.1.6.

Inclusion of Women and Minorities - Section 4.2

Targeted/Planned Enrollment Table - Section 4.3

Inclusion of Children - Section 4.4

*NOTE: If all the proposed research meets the criteria for Exemption 4, then the requirements for inclusion of women and minorities, targeted/planned enrollment table, and inclusion of children, do not need to be addressed.

**Scenario D: Delayed-Onset Human Subjects Research**

**Criteria**

| | |
|---|---|
| Human Subjects Research | Yes |
| Exemption | Yes or No |
| Clinical Trial | Yes or No |
| NIH-Defined Phase III Clinical Trial | Yes or No |

**Instructions and Required Information**

In rare situations, applications are submitted with the knowledge that human subjects will be involved during the period of support, but plans are so indefinite that it is not possible to describe the involvement of human subjects in the application. The kinds of activities that lack definite plans are often institutional awards where the selection of specific projects is the institution's responsibility, research training grants, and projects in which the involvement of human subjects depends upon completion of instruments, animal studies, or purification of compounds.

If the involvement of human subjects is indefinite, create a heading entitled “Protection of Human Subjects” and provide a detailed explanation why it is not possible to develop definite plans at this time. The explanation should be specific and directly related to the Specific Aims in the application. If the involvement of human subjects depends upon information that is not presently available (e.g., completion of instruments, animal studies, purification of compounds), be explicit about the information and the factors affecting the availability of the information. Describe the information that will be necessary in order to develop definite plans for the involvement of human subjects, why that information is not currently available, and when the information is expected to become available during the course of the project.

If an award is made, prior to the involvement of human subjects the grantee must submit to the NIH awarding office for prior approval either (1) detailed information as required in the Research Training Plan, Protection of Human Subjects (addressing risks to the subjects, adequacy of protection against risks, potential benefits of the proposed research, importance of the knowledge to be gained, and data and safety monitoring plan if applicable) and certification of IRB approval, OR (2) if all of the research meets the criteria for one or more exemptions, identification of which exemption(s) is/are applicable to the research, and a justification for the exemption with sufficient information about the involvement of human subjects to allow a determination that the claimed exemption is appropriate. If the research is not exempt, the request for prior approval must also address the inclusion of women and minorities, the inclusion of children, and provide completed targeted/planned enrollment tables as required in the Research Training Plan.

Under no circumstance may human subjects be involved in non-exempt research until approval is granted by the awarding entity, and certification of IRB approval has been accepted by the agency.

In the application narrative, create a section entitled Protection of Human Subjects and a subheading for each of the following items. Follow the instructions that are identified for each of the following topics and EITHER provide as much of the information that is requested as possible; OR describe why it is not possible to provide the information due to delayed-onset of human subjects research:

Protection of Human Subjects - Section 4.1 - 4.1.4

If the research will include a clinical trial, include a Data and Safety Monitoring Plan - Section 4.1.5, and address the ClinicalTrials.gov requirements if applicable – Section 4.1.6.

Inclusion of Women and Minorities - Section 4.2

Targeted/Planned Enrollment Table - Section 4.3

Inclusion of Children - Section 4.4

**Scenario E: Clinical Trial**

**Criteria**

| | |
|---|---|
| Human Subjects Research | Yes |
| Exemption | Yes or No |
| Clinical Trial | Yes |
| NIH-Defined Phase III Clinical Trial | No |

**Instructions and Required Information**

In the application narrative, create a section entitled “Protection of Human Subjects” and include the following statement below the heading: “This Human Subjects Research meets the definition of a clinical trial.” (See definition of "clinical trial" under Part III.3.) Create a subheading for each of the following items. Follow the instructions that are identified for each of the following topics and provide the information that is requested:

Protection of Human Subjects - Section 4.1 - 4.1.6

Inclusion of Women and Minorities - Section 4.2

Targeted/Planned Enrollment Table - Section 4.3

Inclusion of Children - Section 4.4

If the research involves collaborating sites, provide the information identified above for each participating site.

**Scenario F: NIH Defined Phase III Clinical Trial**

**Criteria**

| | |
|---|---|
| Human Subjects Research: | Yes |
| Exempt: | No |
| Clinical Trial: | Yes |
| NIH-Defined Phase III Clinical Trial: | Yes |

**Instructions and Required Information**

In the application narrative, create a section entitled “Protection of Human Subjects” and include the following statement below the heading: “This Human Subjects Research involves an NIH-Defined Phase III Clinical Trial.” (See definition of "NIH defined Phase III Clinical Trial" in Part III.3.)

Create a subheading for each of the following items. Follow the instructions that are identified for each of the following topics and provide the information that is requested:

Protection of Human Subjects - Section 4.1 - 4.1.6

Inclusion of Women and Minorities - Section 4.2

Additional Instructions and Requirements when NIH-Defined Phase III Clinical Trials are Proposed - Section 4.2.1

Targeted/Planned Enrollment Table - Section 4.3

Inclusion of Children - Section 4.4

If the research involves collaborating sites, provide the information identified above for each participating site.

# 4. Instructions Pertaining to Non-Exempt Human Subjects Research

In your application narrative, create a section entitled “Protection of Human Subjects.” Although no specific page limitation applies to this section of the application, be succinct. Scientific Review Groups will assess each application as being acceptable or unacceptable with regard to the protection of human subjects. DHHS regulations and policies governing human subjects research are described and referenced in Section 5 below. Use subheadings to address the issues listed under items 4.1-4.4 below. If your research includes a clinical trial, include a subheading "Data and Safety Monitoring Plan" and follow the instructions in 4.2 below. If your research includes an NIH-Defined Phase III Clinical Trial, follow the additional instructions in 4.2.1 below.

## 4.1 Protection of Human Subjects

### 4.1.1 Risks to Human Subjects

a. ***Human Subjects Involvement and Characteristics***

- Describe the proposed involvement of human subjects in the work outlined in the Research Design and Methods section.
- Describe the characteristics of the subject population, including their anticipated number, age range, and health status.
- Identify the criteria for inclusion or exclusion of any subpopulation.
- Explain the rationale for the involvement of special classes of subjects, such as fetuses, neonates, pregnant women, children, prisoners, institutionalized individuals, or others who may be considered vulnerable populations. Note that 'prisoners' includes all subjects involuntarily incarcerated (for example, in detention centers) as well as subjects who become incarcerated after the study begins.
- List any collaborating sites where human subjects research will be performed, and describe the role of those sites and collaborating investigators in performing the proposed research.

b. ***Sources of Materials***

- Describe the research material obtained from living individuals in the form of specimens, records, or data.
- Describe any data that will be collected from human subjects for the project(s) described in the application.
- Indicate who will have access to individually identifiable private information about human subjects.
- Provide information about how the specimens, records, or data are collected and whether material or data will be collected specifically for the proposed research project.

c. ***Potential Risks***

- Describe the potential risks to subjects (physical, psychological, financial, legal, or other), and assess their likelihood and seriousness to the subjects.
- Where appropriate, describe alternative treatments and procedures, including the risks and potential benefits of the alternative treatments and procedures, to participants in the proposed research.

## 4.1.2 Adequacy of Protection Against Risks

a. ***Recruitment and Informed Consent***

- Describe plans for the recruitment of subjects (where appropriate) and the process for obtaining informed consent. If the proposed studies will include children, describe the process for meeting requirements for parental permission and child assent.
- Include a description of the circumstances under which consent will be sought and obtained, who will seek it, the nature of the information to be provided to prospective subjects, and the method of documenting consent. If a waiver of some or all of the elements of informed consent will be sought, provide justification for the waiver. Informed consent document(s) need not be submitted to the PHS agencies unless requested.

b. ***Protections Against Risk***

- Describe planned procedures for protecting against or minimizing potential risks, including risks to privacy of individuals or confidentiality of data, and assess their likely effectiveness.
- Research involving vulnerable populations, as described in the DHHS regulations, Subparts B-D must include additional protections. Refer to DHHS regulations, and OHRP guidance:
    - Additional Protections for Pregnant Women, Human Fetuses and Neonates: http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm#subpartb
    - Additional Protections for Prisoners: http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm#subpartc

      OHRP Subpart C Guidance: http://www.hhs.gov/ohrp/policy/index.html#prisoners

- Additional Protections for Children:
  http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm#subpartd

  OHRP Subpart D Guidance: http://www.hhs.gov/ohrp/children/

- Where appropriate, discuss plans for ensuring necessary medical or professional intervention in the event of adverse effects to the subjects. Studies that involve clinical trials (biomedical and behavioral intervention studies) must include a general description of the plan for data and safety monitoring of the research and adverse event reporting to the IRB, the NIH and others, as appropriate, to ensure the safety of subjects.

### 4.1.3 Potential Benefits of the Proposed Research to Human Subjects and Others

- Discuss the potential benefits of the research to research participants and others.

- Discuss why the risks to subjects are reasonable in relation to the anticipated benefits to research participants and others.

### 4.1.4 Importance of the Knowledge to be Gained

- Discuss the importance of the knowledge gained or to be gained as a result of the proposed research.

- Discuss why the risks to subjects are reasonable in relation to the importance of the knowledge that reasonably may be expected to result.

NOTE: Test articles (investigational new drugs, devices, or biologics) including test articles that will be used for purposes or administered by routes that have not been approved for general use by the Food and Drug Administration (FDA) must be named. State whether the 30-day interval between submission of applicant certification to the FDA and its response has elapsed or has been waived and/or whether use of the test article has been withheld or restricted by the FDA, and/or the status of requests for an Investigational New Drug (IND) or Investigational Device Exemption (IDE) covering the proposed use of the test article in the Research Training Plan.

### 4.1.5 Data and Safety Monitoring Plan

The NIH Data and Safety Monitoring Plan Policy is described and referenced in Section 5.3.

- If the research includes a clinical trial, create a heading entitled "Data and Safety Monitoring Plan."

- Provide a general description of a monitoring plan that you plan to establish as the overall framework for data and safety monitoring. Describe the entity that will be responsible for monitoring and the process by which Adverse Events (AEs) will be reported to the Institutional Review Board (IRB), the funding I/C, the NIH Office of Biotechnology Activities (OBA), and the Food and Drug Administration (FDA) in accordance with Investigational New Drug (IND) or Investigational Device Exemption (IDE) regulations. Be succinct. Contact the FDA (http://www.fda.gov/) and also see the following websites for more information related to IND and IDE requirements:

http://www.access.gpo.gov/nara/cfr/waisidx_01/21cfr312_01.html (IND)
http://www.access.gpo.gov/nara/cfr/waisidx_01/21cfr812_01.html (IDE)

- The frequency of monitoring will depend on potential risks, complexity, and the nature of the trial; therefore, a number of options for monitoring trials are available. These can include, but are not limited to, monitoring by a:
    a. Applicant Fellow (PD/PI) (required)
    b. Institutional Review Board (IRB) (required)
    c. Independent individual/safety officer
    d. Designated medical monitor
    e. Internal Committee or Board with explicit guidelines
    f. Data and Safety Monitoring Board (DSMB). NIH specifically requires the establishment of Data and Safety Monitoring Boards (DSMBs) for multi-site clinical trials involving interventions that entail potential risk to the participants, and generally for Phase III clinical trials. Although Phase I and Phase II clinical trials may also use DSMBs, smaller clinical trials may not require this oversight format, and alternative monitoring plans may be appropriate.

- A detailed Data and Safety Monitoring Plan must be submitted to the applicant's IRB and subsequently to the funding IC for approval prior to the accrual of human subjects (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-038.html). For additional guidance on creating this Plan, see the above reference.

### 4.1.6 ClinicalTrials.gov Requirements

Public Law 110-85 mandates registration and results reporting of "applicable clinical trials" in ClinicalTrials.gov. Under the statute these trials generally include: (1) Trials of Drugs and Biologics: Controlled, clinical investigations, other than Phase 1 investigations, of a product subject to FDA regulation; and (2) Trials of Devices: Controlled trials with health outcomes, other than small feasibility studies, and pediatric postmarket surveillance. Review the statutory definition of applicable clinical trial to identify if registration is required to comply with the law (See PL 110-85, Section 801(a), adding new 42 U.S.C. 282(j)(1)(A)).

NIH encourages registration of ALL trials whether required under the law or not.

Registration is accomplished at the ClinicalTrials.gov Protocol Registration System Information Website (http://prsinfo.clinicaltrials.gov/). A unique identifier called an NCT number will be generated during the registration process.

For new and renewal (competing) applications that include ongoing clinical trials which require registration and results reporting, provide the NCT number/s, Brief Title/s (as defined by ClinicalTrials.gov, see http://prsinfo.clinicaltrials.gov/), and the identity of the responsible party (or parties) in the human subjects section of the Research Training Plan under a section heading entitled ClinicalTrials.gov. The entity responsible for registering is the “responsible party.” The statute defines the responsible party as:

(1) the sponsor of the clinical trial (as defined in 21 C.F.R. 50.3) (http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr_2003/aprqtr/pdf/21cfr50.3.pdf), or

(2) the principal investigator of such clinical trial if so designated by a sponsor, grantee, contractor, or awardee (provided that "the principal investigator is responsible for conducting the trial, has access to and control over the data from the clinical trial, has the right to publish the results of the trial, and has the ability to meet all of the requirements" for submitting information under the law) (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:publ085.110.pdf). *See* PL 110-85, Section 801(a), (adding new 42 U.S.C. 282(j)(1)(A)(ix)).

If a new applicable trial is proposed, under the heading ClinicalTrials.gov include a statement that the application includes a trial which requires registration in ClinicalTrials.gov. The signature on the application of the Authorized Organizational Representative assures compliance for the registration of any such trial.

## 4.2 Inclusion of Women and Minorities

Create a section heading entitled "Inclusion of Women and Minorities" and place it immediately following the "Protection of Human Subjects" section. Although no specific page limitation applies to this section of the application, be succinct. The NIH Policy on the Inclusion of Women and Minorities in Clinical Research is described and referenced in Section 5.6.

Scientific Review Groups will assess each application as being acceptable or unacceptable with regard to the protection of human subjects.

In this section of the Research Training Plan, address, at a minimum, the following four points:

1. The targeted/planned distribution of subjects by sex/gender and racial/ethnic groups for each proposed study or protocol using the format in the Targeted/Planned Enrollment Table. (Instructions for completing this table are provided below in 4.3.) If using existing specimens and/or data without access to information on the distribution of women and minorities, so state and explain the impact on the goals of the research as part of the rationale that inclusion is inappropriate (item 3 below). Alternatively, describe the women and minority composition of the population base from whom the specimens and/or data will be obtained. Include the Targeted/Planned Enrollment Table in this section.
2. A description of the subject selection criteria and rationale for selection of sex/gender and racial/ethnic group members in terms of the scientific objectives and proposed study design. The description may include, but is not limited to, information on the population characteristics of the disease or condition under study.
3. A compelling rationale for proposed exclusion of any sex/gender or racial/ethnic group (see examples below).
4. A description of proposed outreach programs for recruiting sex/gender and racial/ethnic group members as subjects.

Examples of acceptable justifications for exclusion of:

A. ***One gender:***

1. One gender is excluded from the study because:

   inclusion of these individuals would be inappropriate with respect to their health;

   the research question addressed is relevant to only one gender;

evidence from prior research strongly demonstrates no difference between genders; or

sufficient data already exist with regard to the outcome of comparable studies in the excluded gender, and duplication is not needed in this study.

2. One gender is excluded or severely limited because the purpose of the research constrains the applicant's selection of study subjects by gender (e.g., uniquely valuable stored specimens or existing datasets are single gender; very small numbers of subjects are involved; or overriding factors dictate selection of subjects, such as matching of transplant recipients, or availability of rare surgical specimens).
3. Gender representation of specimens or existing datasets cannot be accurately determined (e.g., pooled blood samples, stored specimens, or data-sets with incomplete gender documentation are used), and this does not compromise the scientific objectives of the research.

B. ***Minority groups or subgroups:***

1. Some or all minority groups or subgroups are excluded from the study because:

   inclusion of these individuals would be inappropriate with respect to their health;

   the research question addressed is relevant to only one racial or ethnic group;

   evidence from prior research strongly demonstrates no differences between racial or ethnic groups on the outcome variables;

   a single minority group study is proposed to fill a research gap; or

   sufficient data already exists with regard to the outcome of comparable studies in the excluded racial or ethnic groups and duplication is not needed in this study.

2. Some minority groups or subgroups are excluded or poorly represented because the geographical location of the study has only limited numbers of these minority groups who would be eligible for the study, and the investigator has satisfactorily addressed this issue in terms of:

   the size of the study;

   the relevant characteristics of the disease, disorder or condition; or

   the feasibility of making a collaboration or consortium or other arrangements to include representation.

3. Some minority groups or subgroups are excluded or poorly represented because the purpose of the research constrains the applicant's selection of study subjects by race or ethnicity (e.g., uniquely valuable cohorts, stored specimens or existing datasets are of limited minority representation, very small numbers of subjects are involved, or overriding factors dictate selection of subjects, such as matching of transplant recipients or availability of rare surgical specimens).
4. Racial or ethnic origin of specimens or existing datasets cannot be accurately determined (e.g., pooled blood samples, stored specimens or data sets with incomplete racial or ethnic documentation are used) and this does not compromise the scientific objectives of the research.

### 4.2.1 Additional Instructions and Requirements When NIH-Defined Phase III Clinical Trials Are Proposed

If the proposed research includes an NIH-Defined Phase III Clinical Trial, the section on Inclusion of Women and Minorities also must address whether clinically important sex/gender and/or race/ethnicity differences are expected from the intervention effect. The discussion may include supporting evidence and/or data derived from animal studies, clinical observations, metabolic studies, genetic studies, pharmacology studies, and observational, natural history, epidemiology and other relevant studies. The discussion of expected sex/gender and/or race/ethnicity differences in intervention effect must include selection and discussion of one of the following analysis plans:

- Plans to conduct valid analyses to detect significant differences in intervention effect among sex/gender and/or racial/ethnic subgroups when prior studies strongly support these significant differences among subgroups, *or*

- Plans to include and analyze sex/gender and/or racial/ethnic subgroups when prior studies strongly support no significant differences in intervention effect between subgroups. (Representation of sex/gender and racial/ethnic groups is not required as subject selection criteria, but inclusion is encouraged.), *or*

- Plans to conduct valid analyses of the intervention effect in sex/gender and/or racial/ethnic subgroups (without requiring high statistical power for each subgroup) when the prior studies neither support nor negate significant differences in intervention effect between subgroups.

## 4.3 Instructions for Completing the Targeted/Planned Enrollment Tables for Reporting Race and Ethnicity Data for Subjects in Clinical Research

The NIH Policy on Reporting Race and Ethnicity Data for Subjects in Clinical Research is described and referenced in Section 5.8.

***A. New Applications***

All new clinical research studies should collect and report information on participants with respect to two categories of ethnicity and five categories of race. The Inclusion Enrollment Report (http://grants.nih.gov/grants/funding/416/416-1-enrollment_report.doc) for reporting summary data on participants to NIH includes two categories of ethnicity and five categories of race and is based on the Office of Management and Budget (OMB) reporting standards for data on race and ethnicity. Investigators should review the instructions and Frequently Asked Questions about using the Enrollment Table format at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-053.html.

When reporting these data in the aggregate, investigators should report: (a) the number of research participants in each ethnic category; (b) the number of research participants who selected only one category for each of the five racial categories; (c) the total number of research participants who selected multiple racial categories reported as the "number selecting more than one race," and (d) the number of research participants in each racial category who are Hispanic or Latino. Investigators may provide the detailed distributions, including all possible combinations, of multiple responses to the racial designations as additional information. However, more detailed data should be compiled in a way that they can be reported using the required categories.

**Instructions for Completing Targeted/Planned Enrollment Table**

Provide the study title.

The “Total Planned Enrollment” means the number of subjects that are expected to be enrolled in the study, consistent with the definition in ClinicalTrials.gov.

The “Total Planned Enrollment” will be reported in two ways in the table: by “Ethnic Category” and by “Racial Categories.”

“Ethnic Category”: Provide the numeric distribution of the Total Planned Enrollment according to ethnicity and sex/gender in the top part of the table.

“Racial Categories”: Provide the numeric distribution of the Total Planned Enrollment, this time by racial categories and sex/gender, in the bottom part of the table. Note that Hispanic is an ethnic, not a racial, category.

If there is more than one study/protocol, provide a separate table for each.

List any proposed racial/ethnic subpopulations below the table.

**Submitting Applications or Proposals Using Existing Data in Clinical Research with No Plans for Collecting New/Additional Data:**

Investigators are instructed to provide plans for the total number of subjects proposed for the study and to provide the distribution by ethnic/racial categories and sex/gender using the Targeted/Planned Enrollment Table. Under these circumstances, investigators are not required to re-contact subjects solely to comply with the newly revised categories.

**If Data Collection is Ongoing, Such that New Human Subjects Will be Enrolled and/or Additional Data Will be Collected from Human Subjects:**

Investigators should report ethnicity/race and sex/gender sample composition using the Inclusion Enrollment Report.

**If Data Collection is Complete, Such that No New/Additional Subject Contact is Planned**:

Investigators should use the Inclusion Enrollment Report.

**Research Conducted at Foreign Sites:**

If proposed studies involve a foreign site, investigators are encouraged to design culturally sensitive and appropriate data collection instruments that allow research participants to self-identify their racial and ethnic affiliation. However, these items should be designed in a way that they can be aggregated into the OMB-required categories. Also, the investigator can report on any racial/ethnic subpopulations by listing this information in an attachment to the required table. This may be particularly useful when distinctive subpopulations are relevant to the scientific hypotheses being studied.

When completing the tables that describe research in foreign sites, investigators should asterisk and footnote the table indicating that data includes research participants in foreign sites. If the aggregated data only includes participants in foreign research sites, the investigator should provide information in one table with an asterisk and footnote. However, if the study includes both domestic and foreign

sites, the investigator should complete two separate tables – one for domestic and another for foreign participants.

***B. Renewal Application and Progress Reports***

The Inclusion Enrollment Report (http://grants.nih.gov/grants/funding/416/416-1-enrollment_report.doc) must be used for reporting accrual data to the NIH. For Revision applications, any proposed additions to the Targeted/Planned Enrollment Table should be provided, in addition to the Inclusion Enrollment Report. In annual progress reports, investigators conducting clinical research are required to provide the cumulative total enrollment of subjects to-date, showing the distribution by ethnic/racial categories and sex/gender on the Inclusion Enrollment Report, and update the Targeted/Planned Enrollment Table as needed.

## 4.4 Inclusion of Children

The NIH Policy on Inclusion of Children is referenced and described in Section 5.7. Instructions for item 11 of the Research Training Plan are as follows:

- Create a section entitled "Inclusion of Children" and place it immediately following the Targeted/Planned Enrollment Table.
- For the purpose of implementing these guidelines, a *child* is defined as an individual under the age of 21 years (for additional information see http://grants.nih.gov/grants/funding/children/children.htm and http://grants.nih.gov/grants/guide/notice-files/not98-024.html).
- Provide either a description of the plans to include children, or, if children will be excluded from the proposed research, application, or proposal, present an acceptable justification for the exclusion (see below).
- If children are included, the description of the plan should include a rationale for selecting a specific age range of children. The plan also must include a description of the expertise of the investigative team for dealing with children at the ages included, of the appropriateness of the available facilities to accommodate the children, and the inclusion of a sufficient number of children to contribute to a meaningful analysis relative to the purpose of the study.
- Scientific Review Groups will assess each application as being acceptable or unacceptable with regard to the age-appropriate inclusion or exclusion of children in the research project.
- When children are involved in research, the Additional Protections for Children Involved as Subjects in Research (45 CFR Part 46 Subpart D) apply and must be addressed under the Protections Against Risk subheading (4.1.2.b).

**Justifications for Exclusion of Children**

For the purposes of this policy, all individuals under 21 are considered children; however, exclusion of any specific age group, such as individuals under 18, should be justified in this section. It is expected that children will be included in all clinical research unless one or more of the following exclusionary circumstances can be fully justified:

1. The research topic to be studied is not relevant to children.
2. There are laws or regulations barring the inclusion of children in the research.

3. The knowledge being sought in the research is already available for children or will be obtained from another ongoing study, and an additional study will be needlessly redundant. Documentation of other studies justifying the exclusions should be provided. NIH program staff can be contacted for guidance on this issue if the information is not readily available.
4. A separate, age-specific study in children is warranted and preferable. Examples include:
    a. The condition is relatively rare in children, as compared to adults (in that extraordinary effort would be needed to include children, although in rare diseases or disorders where the applicant has made a particular effort to assemble an adult population, the same effort would be expected to assemble a similar child population with the rare condition); or
    b. The number of children is limited because the majority are already accessed by a nationwide pediatric disease research network; or
    c. Issues of study design preclude direct applicability of hypotheses and/or interventions to both adults and children (including different cognitive, developmental, or disease stages or different age-related metabolic processes). While this situation may represent a justification for excluding children in some instances, consideration should be given to taking these differences into account in the study design and expanding the hypotheses tested, or the interventions planned, to allow inclusion of children rather than excluding them.
5. Insufficient data are available in adults to judge potential risk in children (in which case one of the research objectives could be to obtain sufficient adult data to make this judgment). Although children usually should not be the initial group to be involved in research studies, in some instances, the nature and seriousness of the illness may warrant their participation earlier based on careful risk and benefit analysis.
6. Study designs are aimed at collecting additional data on pre-enrolled adult study subjects (e.g., longitudinal follow-up studies that did not include data on children).
7. Other special cases can be justified by the investigator and found acceptable to the review group and the Institute Director.

# 5. Human Subjects Research Policy

Human Subjects Research Policy includes DHHS regulations for the protection of human subjects and the following NIH policies related to human subjects research.

## 5.1 Protection of Human Subjects

The Department of Health and Human Services (DHHS) regulations for the protection of human subjects provide a systematic means, based on established, internationally recognized ethical principles, to safeguard the rights and welfare of individuals who participate as subjects in research activities supported or conducted by the DHHS. The regulations stipulate that the awardee organization, whether domestic or foreign, bears responsibility for safeguarding the rights and welfare of human subjects in DHHS-supported research activities. The regulations require that applicant organizations proposing to involve human subjects in nonexempt research hold a Federal-wide Assurance (FWA) with the Office for Human Research Protections (OHRP), and establish appropriate policies and procedures for the protection of human subjects. These regulations, 45 CFR Part 46, Protection of Human Subjects, are available from OHRP, Department of Health and Human Services, The Tower Building, 1101 Wootton Parkway, Suite 200, Rockville, MD; telephone: 1-866-447-4777 (toll-free) or (240) 453-6900; email: ohrp@osophs.dhhs.gov.

Nonexempt research involving human subjects may only be conducted under a DHHS award if the organization is operating in accord with an approved FWA and provides verification that an Institutional Review Board (IRB) that is registered under the specific FWA has reviewed and approved the proposed activity in accordance with the DHHS regulations. No award to an individual will be made unless that individual is affiliated with an assured organization that accepts responsibility for compliance with the DHHS regulations. Foreign applicant organizations must also comply with the provisions of the regulations unless a determination of equivalent protections is made in accord with 45 CFR 46.101(h).

Under DHHS regulations to protect human subjects, certain research areas are exempt. However, if an applicant makes inappropriate designations of the noninvolvement of human subjects or of exempt categories of research, this may result in delays in the review of an application or the return of the application without review. The PHS will make a final determination as to whether the proposed activities are covered by the regulations or are in an exempt category, based on the information provided in the Research Training Plan. With the exception of research projects that meet the criteria for Exemption 4, studies that are exempt from the human subjects regulatory requirements must still address the inclusion of women, minorities and children in the study design.

Regulations of the Food and Drug Administration (21 CFR 50, 21 CFR 56) generally apply to biomedical research involving an unapproved drug, device or biologic and may apply to certain studies of approved products. Additional information on FDA regulations is available at http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm. If work falls under FDA's regulatory requirements, the grantee must follow both DHHS and FDA human subject protection regulations.

The *National Institutes of Health Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines)* apply to all projects (NIH-funded and non NIH-funded) involving recombinant DNA molecules that are conducted at or sponsored by an institution that receives NIH support for recombinant DNA research. See Part III, 2.9. Research Involving Recombinant DNA, including Human Gene Transfer Research.

Federal requirements to protect human subjects apply to most research on human specimens (such as cells, blood, and urine), residual diagnostic specimens, and medical information. Research involving the collection or study of existing data, documents, records, pathological specimens, diagnostic specimens, or tissues that are individually identifiable is considered “research involving human subjects.” The NIH Office of Extramural Research Human Subjects website contains additional information and Frequently Asked Questions to help investigators understand how these federal requirements apply to their research. See http://grants.nih.gov/grants/policy/hs/index.htm.

The DHHS regulations require the NIH to evaluate all applications and proposals involving human subjects (http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm#46.120). This independent evaluation is conducted at the NIH through the peer review system and NIH staff review, and, as required, will take into consideration the risks to the subjects, the adequacy of protection against these risks, the potential benefits of the research to the subjects and others, and the importance of the knowledge gained or to be gained. On the basis of this evaluation, the NIH may approve or disapprove the application or proposal, or enter into negotiations to develop an approvable one.

## 5.2 Vulnerable Populations

Investigators who conduct research involving pregnant women, human fetuses and neonates, prisoners, or children, must follow the provisions of the regulations in Subparts B, C, and D of 45 CFR Part 46, respectively. The subparts describe the additional protections required for conducting

research involving these populations. Relevant information may be obtained at the OHRP website (http://www.hhs.gov/ohrp/policy/index.html).

REMINDER: DHHS regulations at **45 CFR Part 46, Subpart C** describe requirements for additional protections for research involving prisoners as subjects ***or*** individuals who become prisoners after the research has started. Refer to: http://www.hhs.gov/ohrp/humansubjects/guidance/prisoner.htm for complete instructions.

Exemptions 1-6 do **not** apply to research involving prisoners or subjects who become prisoners (see Subpart C). Although Exemptions 1 and 3-6 apply to research involving children (see Subpart D), Exemption 2 can only be used for research involving educational testing or observations of public behavior when the investigator(s) do not participate in the activities being observed.

## 5.3 Data and Safety Monitoring Plans for Clinical Trials

For each proposed clinical trial, NIH requires a data and safety monitoring plan that describes oversight and monitoring to ensure the safety of participants and the validity and integrity of the data. The level of monitoring should be commensurate with the risks and the size and complexity of the clinical trial. Prior to the accrual of human subjects, a detailed data and safety monitoring plan must be submitted to the applicant's IRB and to the funding entity for approval. Adverse Events must be reported to the IRB, the NIH funding Institute or Center, and other appropriate offices or agencies. This policy requirement is in addition to any monitoring requirements imposed by 45 CFR Part 46. NIH policy specifically requires the establishment of a Data and Safety Monitoring Board (DSMB) for multi-site clinical trials involving interventions that entail potential risk to the participants, and generally for Phase III clinical trials. See also Part III, 2.1 Human Subjects Research.

## 5.4 IRB Approval

NIH does not require certification of IRB approval of the proposed research prior to NIH peer review of an application. See http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-031.html.

Following NIH peer review, applicants and their institutions will be notified of the need for review and approval of the proposed research by an IRB that is registered with OHRP. See http://www.hhs.gov/ohrp/ to register an IRB. Certification of IRB approval must be sent to the Grants Management Office identified in the notice requesting documentation. Certification of IRB review and approval must include: the PHS application number, title of the project, name of the program director /principal investigator, date of IRB approval, and appropriate signatures. Grantees may also use the optional form "Protection of Human Subjects - Assurance Identification/IRB Certification/Declaration of Exemption (Common Rule)" (OMB Form No. 0990-0263 http://www.hhs.gov/ohrp/humansubjects/assurance/OF310.rtf) to meet this requirement.

The OHRP has determined that an institution is automatically considered to be engaged in human subjects research when it receives an NIH award to support nonexempt human subjects research. See http://www.hhs.gov/ohrp/humansubjects/assurance/engage.htm. All institutions engaged in human subjects research must obtain a Federalwide Assurance (FWA) from OHRP. Instructions for applying for a Federalwide Assurance (FWA) are available from the OHRP website at http://www.hhs.gov/ohrp/assurances/assurances_index.html.

Any modifications to the Research Training Plan in the application, required by either NIH or by the IRB, must be submitted with follow-up certification of IRB approval to the NIH before the competing award is made. It is the responsibility of the Fellow and the applicant organization to submit the follow-up documentation.

If more than a year will have elapsed between the initial IRB review date and the anticipated award date, the awarding unit staff shall require re-review by the IRB prior to award.

## 5.5 Required Education in the Protection of Human Research Participants

NIH requires education on the protection of human research participants for all individuals identified in PHS applications as Senior/key Personnel who will be involved in the design or conduct of human subjects research, before funds are awarded for applications or contract proposals involving human subjects. For information relating to this requirement, see the following notices http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-054.html, http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-061.html, http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-039.htmland Frequently Asked Questions at: http://grants.nih.gov/grants/policy/hs_educ_faq.htm. Prior to award, applicants will be required to provide a description of education completed in the protection of human subjects for all Senior/key Personnel involved in the design or conduct of human subjects research. Although NIH does not endorse specific programs, there are curricula available that can provide guidance or that can be modified to provide training in this area. See http://phrp.nihtraining.com for computer-based training developed for NIH that can be downloaded at no charge. For information on facilitating education and developing curricula, see http://www.nih.gov/sigs/bioethics.

## 5.6 NIH Policy on the Inclusion of Women and Minorities in Clinical Research

NIH policy requires that women and members of minority groups and their subpopulations must be included in all NIH-supported biomedical and behavioral research projects involving clinical research unless a clear and compelling rationale and justification establishes to the satisfaction of the relevant IC Director that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. Exclusion under other circumstances may be made by the Director, NIH, upon the recommendation of an IC Director based on a compelling rationale and justification. Cost is not an acceptable reason for exclusion except when the study would duplicate data from other sources. Women of childbearing potential should not be routinely excluded from participation in clinical research. All NIH-supported biomedical and behavioral research involving human subjects is defined as clinical research. This policy applies to research subjects of all ages.

The inclusion of women and members of minority groups and their subpopulations must be addressed in developing a research design appropriate to the scientific objectives of the study. The Research Training Plan should describe the composition of the proposed study population in terms of sex/gender and racial/ethnic group, and provide a rationale for selection of such subjects. Such a plan should contain a description of the proposed outreach programs for recruiting women and minorities as participants. See http://grants.nih.gov/grants/funding/women_min/women_min.htm.

## 5.7 NIH Policy on Inclusion of Children

Research involving children (see definition of "child") must comply with the NIH Policy and Guidelines on the Inclusion of Children in Clinical Research. Investigators should obtain full copies of the Policy and Guidelines from NIH staff, or from http://grants.nih.gov/grants/funding/children/children.htm.

NIH policy requires that children (i.e., individuals under the age of 21) must be included in all clinical research, conducted or supported by the NIH unless there are clear and compelling reasons not to include them. Therefore, proposals for clinical research must include a description of plans for including children. If children will be excluded from the research, the application or proposal must present an acceptable justification for the exclusion.

The involvement of children as subjects in research must be in compliance with all applicable subparts of 45 CFR Part 46 as well as with other pertinent Federal laws and regulations.

IRBs have special review requirements to protect the well-being of children who participate in research. These requirements relate to risk, benefit, parental/guardian consent, and assent by children, and to research involving children who are wards of the state or of another institution. The local IRB approves research that satisfies the conditions set forth in the regulations.

## 5.8 NIH Policy on Reporting Race and Ethnicity Data: Subjects in Clinical Research

The Office of Management and Budget (OMB) (http://www.whitehouse.gov/omb/fedreg/ombdir15.html) defines minimum standards for maintaining, collecting and presenting data on race and ethnicity for all Federal reporting agencies (including NIH). The standards were revised in 1997 and include two ethnic categories (Hispanic or Latino and Not Hispanic or Latino) and five racial categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White). Reports of data on race and ethnicity shall use these categories. The categories in this classification are social-political constructs and should not be interpreted as being anthropological in nature. NIH is required to use these definitions to allow comparisons to other federal databases, especially the census and national health databases. The following definitions apply to the minimum standards for the ethnic and racial categories.

**Ethnic Categories:**

**Hispanic or Latino:** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, “Spanish origin,” can be used in addition to “Hispanic or Latino.”

**Not Hispanic or Latino**

**Racial Categories:**

**American Indian or Alaska Native:** A person having origins in any of the original peoples of North, Central, or South America, and who maintains tribal affiliation or community attachment.

**Asian:** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. (Note: Individuals from the Philippine Islands have been recorded as Pacific Islanders in previous data collection strategies.)

**Black or African American:** A person having origins in any of the black racial groups of Africa. Terms such as “Haitian” or “Negro” can be used in addition to “Black or African American.”

**Native Hawaiian or Other Pacific Islander:** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**White:** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

**Ethnic/Racial Subpopulations:** In addition to OMB ethnic and racial categories, NIH uses the following definition for ethnic/racial subpopulations:

Subpopulations: Each ethnic/racial group contains subpopulations that are delimited by geographic origins, national origins, and/or cultural differences. It is recognized that there are different ways of defining and reporting racial and ethnic subpopulation data. The subpopulation to which an individual is assigned depends on self-reporting of specific origins and/or cultural heritage. Attention to subpopulations also applies to individuals who self identify with more than one race. These ethnic/racial combinations may have biomedical, behavioral, and/or social-cultural implications related to the scientific question under study.

**Guidance on Collecting Race and Ethnicity Data from Human Subjects**

When an investigator is planning to collect data on ethnicity and race, the categories identified above should be used. The collection of greater detail is encouraged, for example on ethnic/racial subpopulations. However, any collection that uses more detail must be designed in a way that data can be aggregated into these minimally required categories. Use self-report or self-identification to collect this information by asking two separate questions – one on ethnicity and one on race. Collect ethnicity information first followed by the question on race and provide subjects with the option to select more than one racial category. An example of a format for collecting information from study subjects in the US that meets the OMB requirements can be found in the Ethnic Origin and Race section of the Personal Data Form Page http://grants.nih.gov/grants/funding/416/phs416.htm in the PHS 416-1.

See NIH Policy on Inclusion of Women and Minorities and http://grants.nih.gov/grants/funding/women_min/women_min.htm.

## 5.9 Research on Transplantation of Human Fetal Tissue

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that if research on the transplantation of human fetal tissue is conducted, the applicant organization will make available, for audit by the Secretary, DHHS, the physician statements and informed consents required by section 498A (b)(2) and (c) of the Public Health Service Act, 42 U.S.C. 289g (b)(2) and (c), or ensure DHHS access to those records, if maintained by an entity other than the applicant organization.

## 5.10 Research Using Human Embryonic Stem Cells

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that if research using human embryonic stem cells is proposed, the applicant organization will be in compliance with the "Notice of Extended Receipt Date and Supplemental Information Guidance for Applications Requesting Funding that Proposes Research with Human Embryonic Stem Cells" (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-006.html). See http://stemcells.nih.gov/research/registry/eligibilityCriteria.asp for additional information on stem cells,

and http://stemcells.nih.gov/policy/guidelines.asp for Federal policy statements and guidelines on federally funded stem cell research.

## 5.11 ClinicalTrials.gov Requirements

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that if the research is an applicable clinical trial under Public Law 110-85, the applicant organization will be in compliance with the registration and reporting requirements of Public Law 110-85 (see Part III, Section 2.1.6).

# PART III

# Policies, Assurances, Definitions, and Other Information

# 1. Policy

## 1.1 Resubmission of Unpaid RFA Applications and Resubmission of Applications with a Changed Grant Activity Mechanism

See http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-019.html.

The majority of grant applications submitted to NIH each year are investigator-initiated. However, the Institutes and Centers of NIH also solicit grant applications on specific topics through the use of Requests for Applications (RFAs). Resubmissions of grant applications fall into the following categories:

1. Applications that were originally submitted in response to an RFA and then resubmitted as an investigator-initiated application.
2. Applications that were originally submitted as investigator-initiated applications and subsequently resubmitted in response to an RFA.
3. Applications that were originally submitted using one grant mechanism and subsequently resubmitted using a different grant mechanism (for example, an application that was originally an R01 and is resubmitted as an R21).

Since an RFA often has special considerations of eligibility, scientific scope, and review criteria, most unfunded applications should be resubmitted as **new** applications. Similarly, a change of grant mechanism (e.g., from an R01 to an R21, or from an R03 to an R01) usually involves a change of eligibility criteria, application characteristics, dollar limits, time limits, or review criteria. This also suggests that consideration as a new application is the most appropriate course. Because the application will be new it will be easier to conform to the new application requirements, which should be an advantage to the applicant in the review process. Additionally, submission of a new application will allow the applicant to benefit fully from the NIH policy that allows an applicant one resubmission.

NEW APPLICATIONS: The new application must be submitted on the scheduled due dates for new applications (see http://grants.nih.gov/grants/funding/submissionschedule.htm). Do **not** include an Introduction describing the changes and improvements made and do **not** mark text to indicate the changes. Although the investigator may still benefit from the previous review, the applicant should not explicitly address reviewers' comments. The reviewers will not be provided with the previous Summary Statement. The investigator will be allowed to submit the new application and up to one resubmission of this application, should that be necessary.

POLICY: This general policy on application resubmission, stated below, applies to all grant mechanisms that might be solicited via an RFA and to instances where there is a change in mechanism. There may, however, be exceptions to this policy, which will be clearly identified in the original RFA or in a follow-up RFA.

1. When an application that was submitted in response to an RFA is not funded and the investigator wishes to resubmit an application on this topic as an investigator-initiated application, it is to be submitted as a **new** application, unless provisions for submission of a resubmission application are clearly delineated in the RFA. In addition, if a subsequent RFA specifically solicits revisions of unfunded applications from a previous RFA, the instructions in the second RFA should be followed.

In all other cases, applications submitted in response to an RFA and then resubmitted as an investigator-initiated application must be submitted as a **new** application.

2. When a previously unfunded application, originally submitted as an investigator-initiated application is to be submitted in response to an RFA, it is to be prepared as a **new** application.
3. When an unfunded application that was reviewed for a particular research grant mechanism (for example, R01) is to be submitted for a different grant mechanism (for example, R03), it is to be prepared as a **new** application.

## 1.2 NIH Policy on Resubmission Applications

See: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-003.html.

For all original new (i.e. never submitted) Individual Fellowship applications intended for the April 2009 due dates and beyond, NIH will accept only a single amendment application (now known as a "Resubmission" application) and there is no time limit for the resubmission application. Any second resubmission will be administratively withdrawn and not accepted for review. For applications submitted prior to April 2009 applicants are permitted two resubmissions. For these "grandfathered" applications, any second resubmission must be submitted no later than January 7, 2011 and NIH will not accept any second resubmissions after that date.

With regard to Resubmission applications, a lengthy hiatus after the initial submission may be marked by significant advances in the scientific field and the comments of the reviewers may no longer be relevant. Fellows and their sponsoring institutions need to exercise their best judgment in determining the advisability of a Resubmission application after several years have elapsed.

The policy limiting the number of Resubmissions was established following release of a report on the NIH Peer Review System that was drafted with extensive consultation with the external community, and which found a marked reduction in the number of awards made in response to original applications. Data in the report showed an increasing number of projects were funded only after one or two resubmissions. As a result, there has been greater burden placed on applicants and reviewers as well as a delay in funding for meritorious science. To change this trend and increase the likelihood that meritorious original applications will be funded, NIH is decreasing the number of resubmissions allowed.

Investigators who have submitted multiple versions of an application and have not been successful often ask NIH staff how different the next application submitted has to be in order to be considered a new application. It is recognized that investigators are trained in a particular field of science and are not likely to make drastic changes in their research interests; however, a new application following multiple reviews is expected to be substantially different in content and scope with more significant differences than are normally encountered in a Resubmission application. Simply re-wording the title and/or Specific Aims or incorporating minor changes in response to comments in the previous Summary Statement does not constitute a substantial change in scope or content. Changes to the Research Training Plan should produce a significant change in direction and approach for the research project. Thus, a new application would include substantial changes in all sections of the Research Training Plan, particularly the Specific Aims and the Research Design and Methods sections.

In the referral process, NIH staff look at all aspects of the application, not just the title and description (abstract). Requesting review by a different review committee does not affect the implementation of this policy. When necessary, previous applications are analyzed for similarities to the present one. Thus, identical applications or those with only minor changes will not be accepted for review.

## 1.3 Sharing Research Resources

Investigators conducting biomedical research frequently develop unique research resources. NIH considers the sharing of such unique research resources (also called research tools) an important means to enhance the value of NIH-sponsored research. Restricting the availability of unique resources can impede the advancement of further research. Therefore, when these resources are developed with NIH funds and the associated research findings have been published or after they have been provided to NIH, it is important that they be made readily available for research purposes to qualified individuals within the scientific community. At the same time NIH recognizes the rights of grantees and contractors to elect and retain title to subject inventions developed with federal funding pursuant to the Bayh Dole Act. See the NIH Grants Policy Statement, and the Office of Extramural Research, Division of Extramural Inventions & Technology Resources (DEITR), Intellectual Property Policy page: http://inventions.nih.gov.

The adequacy of resource sharing plans are considered by reviewers when a competing application is evaluated. Reviewers are asked to describe their assessment of the sharing plan in an administrative note, and will not normally include their assessment in the overall priority score. Program staff are responsible for overseeing resource sharing policies and for assessing the appropriateness and adequacy of any proposed resource sharing plans.

### 1.3.1 Data Sharing Policy

All investigator-initiated applications with direct costs of $500,000 or greater in any single year are expected to address data-sharing in their application. Applicants are encouraged to discuss data-sharing plans with their program contact at the time they negotiate an agreement with the Institute/Center (IC) staff to accept assignment of their application as described at http://grants.nih.gov/grants/guide/ notice-files/NOT-OD-02-004.html.

Applicants are reminded that agreement to accept assignment of applications $500,000 or greater must be obtained at least six weeks in advance of the anticipated submission date. Instructions related to the data-sharing policy as it is applied to applications and proposals responding to a specific Request for Application (RFA) or Request for Proposals (RFP) will be described in the specific solicitation. In some cases, other Funding Opportunity Announcements (FOAs) may request data-sharing plans for applications that are less than $500,000 direct costs in any single year.

NIH recognizes that in some cases data-sharing may be complicated or limited by institutional policies, local IRB rules, as well as local, state and Federal laws and regulations, including the HIPAA Privacy Rule. The rights and privacy of individuals who participate in NIH-sponsored research must be protected at all times. Thus, data intended for broader use should be free of identifiers that would permit linkages to individual research participants and variables that could lead to deductive disclosure of the identity of individual subjects. When data-sharing is limited, applicants should explain such limitations in their data-sharing plans.

For more information on data-sharing, please see: http://grants.nih.gov/grants/ policy/data_sharing/ and the NIH Final Policy on Sharing Research Data.

### 1.3.2 Sharing Model Organism Policy

All applications where the development of model organisms is anticipated are expected to include a description of a specific plan for sharing and distributing unique model organism research resources generated using NIH funding so that other researchers can benefit from these resources, or state appropriate reasons why such sharing is restricted or not possible. Model organisms include but are

not restricted to mammalian models, such as the mouse and rat; and non-mammalian models, such as budding yeast, social amoebae, round worm, fruit fly, zebra fish, and frog. Research resources to be shared include genetically modified or mutant organisms, sperm, embryos, protocols for genetic and phenotypic screens, mutagenesis protocols, and genetic and phenotypic data for all mutant strains.

This expectation is for **all** applications where the development of model organisms is anticipated, regardless of funding amount.

For additional information on this policy, see the NIH Model Organism for Biomedical Research Website at: http://www.nih.gov/science/models/ and NIH Guide Notices OD-04-042: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-042.html, and OD-04-066: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-066.html.

### 1.3.3 Policy for Genome-Wide Association Studies (GWAS)

NIH is interested in advancing genome-wide association studies (GWAS) to identify common genetic factors that influence health and disease through a centralized GWAS data repository. For the purposes of this policy, a genome-wide association study is defined as any study of genetic variation across the entire human genome that is designed to identify genetic associations with observable traits (such as blood pressure or weight), or the presence or absence of a disease or condition.

All applications, regardless of the amount requested, proposing a genome-wide association study are expected to provide a plan for submission of GWAS data to the NIH-designated GWAS data repository, or provide an appropriate explanation why submission to the repository is not possible. Data repository management (submission and access) is governed by the Policy for Sharing of Data Obtained in NIH Supported or Conducted Genome-Wide Association Studies, NIH Guide NOT-OD-07-088. For additional information see: http://grants.nih.gov/grants/gwas/.

## 1.4 Inventions and Patents

NIH Grants Policy and Federal law require NIH recipient organizations to promptly report all inventions that are either conceived or first actually reduced to practice using NIH funding. Invention reporting compliance is described at http://www.iedison.gov. Grantees are encouraged to submit reports electronically using Interagency Edison (http://www.iedison.gov). Information from these reports is retained by the NIH as confidential and submission does not constitute any public disclosure. Failure to report as described at 37 CFR Section 401.14 is a violation of 35 U.S.C. 202 and may result in loss of the rights of the recipient organization. Inquiries or correspondence should be directed to **Division of Extramural Inventions and Technology Resources, Office of Policy for Extramural Research Administration, OER, NIH, 6705 Rockledge Dr., Suite 310, MSC 7980, Bethesda, MD 20892-7980, Telephone: (301) 435-1986.**

## 1.5 Just-In-Time Policy

Several elements of an application are not required at the time the application is submitted. Instead, this information is requested later in the review cycle (i.e., “just-in-time”) to minimize burden to institutions and to ensure that the information is current. The information eligible for just-in-time submission includes:

- Current Other Support: See 1.8 Other Support policy information below. Use the sample format provided on the Other Support Format Page (MS WORD or PDF). For all Senior/key

Personnel, provide details on adjustment of any budgetary, scientific, or effort overlap if the application is funded.

For Career Development Award applicants, information on current institutional salary and all active support for the candidate, as well as active support for mentor(s), co-mentor(s), and Senior/key Personnel may be requested by the awarding component prior to award.

- Certifications:
    - If research involving human subjects is proposed, the Federal-wide Assurance number (if not previously provided) and the Certification of IRB Review and Approval of the research proposed in the application. Pending or out-of-date approvals cannot be accepted.
    - If research involving live vertebrate animals is proposed, Animal Welfare Assurance number of the applicant organization, date of IACUC approval of the research proposed in the application, and any IACUC-imposed changes. Pending or out-of-date approvals cannot be accepted. IACUC approval must be dated within the last three years to be valid.
- Human Subjects Education: For applications that propose human subjects research, certification that each person identified as Senior/key Personnel involved in the design or conduct of research involving human subjects has completed an educational program in the protection of human subjects. For further information refer to the separate section on Required Education in the Protection of Human Research Participants in Part II, 5.5.
- Applicants for **Research Career Development Awards** will be asked to provide detailed, categorical budget and narrative justification pages (Form Page 4 and Form Page 5) prior to award.

Applicants are advised to submit just-in-time information only when requested by the awarding component. Guidance for submitting this information will be provided at the time of the request. Alternatively, this information may be submitted using the Just-In-Time feature of the eRA Commons found in the **Status** section. For information on the Commons see: https://commons.era.nih.gov/commons/index.jsp.

## 1.6 DUNS Number

Applicant organizations **must** have a DUN and Bradstreet (D&B) Data Universal Numbering System (DUNS) number as the Universal Identifier when applying for Federal grants or cooperative agreements. See instructions in Part I, Face Page, Item 12.

## 1.7 Public Access Policy

The Public Access Policy ensures that the public has access to the published results of NIH funded research at the NIH National Library of Medicine's (NLM) PubMed Central (PCM), a free digital archive of full-text biomedical and life sciences journal literature [http://www.pubmedcentral.nih.gov/]. Under the Policy NIH-funded investigators are required by Federal law to submit (or have submitted for them) to PMC an electronic version of the final, peer-reviewed manuscript upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication. The author's final peer-reviewed manuscript is defined as the final version accepted for journal

publication on or after 4/7/2008, and includes all modifications from the publishing peer review process, and all graphics and supplemental material associated with the article. Institutions and investigators are responsible for ensuring that any publishing or copyright agreements concerning submitted articles fully comply with this Policy. Applicants citing articles in NIH applications, proposals, and progress reports that fall under the Policy, were authored or co-authored by the applicant and arose from NIH support must include the PubMed Central reference number (PCMID) or NIH Manuscript Submission reference number (NIHMS ID).

This policy applies to all peer-reviewed articles resulting from research supported in whole or in part with direct costs from NIH, including research grant and career development award mechanisms, cooperative agreements, contracts, Institutional and Individual Ruth L. Kirschstein National Research Service Awards, SBIR/STTR awards, and NIH intramural research studies.

Additional information can be found at: http://publicaccess.nih.gov/.

## 1.8 PHS Metric Program

Consistent with Government-wide implementing regulations, 15 CFR Part 19, Subpart B and/or any other Government-wide requirements, PHS policy is to support Federal transition to the metric system and to use the metric system of measurement in all grants, cooperative agreements, and all other financial assistance awards. Likewise, measurement values in reports, publications, and other communications regarding grants will be in metric.

## 1.9 Transition to the SF424 (R&R) Application and Electronic Submission through Grants.gov

As first announced in August 2005 (NOT-OD-05-067), NIH is transitioning from the PHS 416-1 application to the SF424 (R&R) application and electronic submission through Grants.gov. This transition is being done by grant mechanism. Applicants should refer to the Timeline to determine when a particular mechanism has transitioned to the new form and electronic submission. Information on Transition Strategy and Timeline can be found at: http://era.nih.gov/ElectronicReceipt/strategy_timeline.htm.

For more information on NIH's transition plans, see the website for Electronic Submission of Grant Applications: http://era.nih.gov/ElectronicReceipt/.

# 2. Assurances and Certifications

Each application to the PHS requires that the following assurances and certifications be verified by the signature of the Official Signing for Applicant Organization on the Face Page of the application.

The assurances listed and explained below may or may not be applicable to the project, program, or type of applicant organization. There are a number of additional public policy requirements with which applicants and grantees must comply. Contact the institution's research grant administrative office or consult the *NIH Grants Policy Statement* for additional information. A copy of the NIH Grants Policy Statement may be obtained from the NIH website (http://grants.nih.gov/grants/policy/ policy.htm). In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that the applicant organization will comply with the following policies, assurances and/or certifications:

## 2.1 Human Subjects Research

(See also Part II: Supplemental Instructions for Preparing the Protection of Human Subjects Section of the Research Training Plan.)

The DHHS regulations for the protection of human subjects provide a systematic means, based on established, internationally recognized ethical principles, to safeguard the rights and welfare of individuals who participate as subjects in research activities supported or conducted by the DHHS. The regulations stipulate that the awardee organization, whether domestic or foreign, bears responsibility for safeguarding the rights and welfare of human subjects in DHHS-supported research activities. The regulations require that applicant organizations proposing to involve human subjects in

non-exempt research hold a Federal-wide Assurance (FWA) with the Office for Human Research Protections (OHRP), and establish appropriate policies and procedures for the protection of human subjects. These regulations, 45 CFR Part 46, Protection of Human Subjects, are available from the OHRP, Department of Health and Human Services, The Tower Building, 1101 Wootton Parkway, Suite 200, Rockville, MD 20852; telephone: 1-866-447-4777 (toll-free) or (240) 453-6900; email: ohrp@osophs.dhhs.gov.

Non-exempt research involving human subjects may only be conducted under a DHHS award if the organization is operating in accord with an approved FWA and provides verification that an Institutional Review Board (IRB) that is registered under the specific FWA has reviewed and approved the proposed activity in accordance with the DHHS regulations. No award to an individual will be made unless that individual is affiliated with an assured organization that accepts responsibility for compliance with the DHHS regulations. Foreign applicant organizations must also comply with the provisions of the regulations unless a determination of equivalent protections is made in accord with 45 CFR 46.101(h).

Under DHHS regulations to protect human subjects, certain research areas are exempt. (See Exemption Categories). With the exception of research projects that meet the criteria for Exemption 4, studies that are exempt from the human subjects regulatory requirements must still address the inclusion of women, minorities and children in the study design.

Regulations of the Food and Drug Administration (21 CFR 50; 21 CFR 56) generally apply to biomedical research involving an unapproved drug, device or biologic, and may apply to certain studies of approved products. Additional information on FDA regulations is available at http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm. If work falls under FDA's regulatory requirements, the grantee must follow both DHHS and FDA human subject protection regulations.

**Vulnerable Populations**

Investigators who conduct research involving pregnant women, human fetuses and neonates, prisoners, or children, must follow the provisions of the regulations in Subparts B, C, and D of 45 CFR Part 46, respectively. The subparts describe the additional protections required for conducting research involving these populations. Relevant information may be obtained at the OHRP website (http://www.hhs.gov/ohrp/policy/index.html).

REMINDER: DHHS regulations at **45 CFR Part 46, subpart C** describe requirements for additional protections for research involving prisoners as subjects ***or*** individuals who become prisoners after the research has started. Refer to: http://www.hhs.gov/ohrp/humansubjects/guidance/prisoner.htm for complete instructions.

Exemptions 1-6 (see Exemptions under Human Subjects Research Definitions and Terms, Part III.3) do **not** apply to research involving prisoners or subjects who become prisoners (see Subpart C). Although Exemptions 1 and 3-6 apply to research involving children (see Subpart D), Exemption 2 can only be used for research involving educational testing or observations of public behavior when the investigator(s) do not participate in the activities being observed.

**Data and Safety Monitoring**

For each proposed clinical trial, NIH requires a data and safety monitoring plan that describes oversight and monitoring to ensure the safety of participants and the validity and integrity of the data. The level of monitoring should be commensurate with the risks and the size and complexity of the clinical trial. Prior to the accrual of human subjects, a detailed data and safety monitoring plan must be submitted to the applicant's IRB and to the funding entity for approval. Adverse Events must be

reported to the IRB, the NIH funding Institute or Center, and other appropriate offices or agencies. This policy requirement is in addition to any monitoring requirements imposed by 45 CFR Part 46.

NIH Policy specifically requires the establishment of Data and Safety Monitoring Boards (DSMBs) for multi-site clinical trials involving interventions that entail potential risk to the participants, and generally for Phase III clinical trials. A DSMB also may be appropriate for clinical trials if the studies are blinded (masked), employ high-risk interventions, or involve vulnerable populations.

Summary reports of adverse events must be provided to the NIH funding IC and to individual IRBs in order for them to address reports related to the site for which they have responsibility. Grantees should address questions on this subject to the NIH Program Official.

Further information concerning these requirements is contained in several *NIH Guide for Grants and Contracts* notices (http://grants.nih.gov/grants/guide/notice-files/not98-084.html and http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-038.html).

**Required Education in the Protection of Human Research Participants**

NIH requires education on the protection of human research participants for all individuals identified in PHS applications as Senior/key Personnel who will be involved in the design or conduct of human subjects research, before funds are awarded for applications or contract proposals involving human subjects. For information relating to this requirement, see the following notices: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-039.html and http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-061.html, and Frequently Asked Questions at http://grants.nih.gov/grants/policy/hs_educ_faq.htm. Prior to award, applicants will be required to provide a description of education completed in the protection of human subjects for all Senior/key Personnel involved in the design or conduct of human subjects research. Although NIH does not endorse specific programs, there are curricula available that can provide guidance or that can be modified to provide training in this area. See http://cme.cancer.gov/clinicaltrials/learning/humanparticipant-protections.asp for computer-based training developed for NIH that can be downloaded at no charge. For information on facilitating education and developing curricula, see http://www.nih.gov/sigs/bioethics.

## 2.1.1 Research on Transplantation of Human Fetal Tissue

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that if research on the transplantation of human fetal tissue is conducted, the applicant organization will make available, for audit by the Secretary, DHHS, the physician statements and informed consents required by section 498A (b)(2) and (c) of the Public Health Service Act, 42 U.S.C. 289g (b)(2) and (c), or ensure DHHS access to those records, if maintained by an entity other than the applicant organization.

## 2.1.2 Research Using Human Embryonic Stem Cells

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization certifies that if research using human embryonic stem cells is proposed, the applicant organization will be in compliance with the "Notice of Extended Receipt Date and Supplemental Information Guidance for Applications Requesting Funding that Proposes Research with Human Embryonic Stem Cells" (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-006.html). See also http://stemcells.nih.gov/research/registry/eligibilityCriteria.asp for additional guidance on stem cells and http://stemcells.nih.gov/policy/guidelines.asp for Federal policy statements and guidelines on federally funded stem cell research.

### 2.1.3 NIH Policy on the Inclusion of Women and Minorities as Subjects in Clinical Research

NIH policy requires that women and members of minority groups and their subpopulations must be included in all NIH-supported biomedical and behavioral research projects involving clinical research unless a clear and compelling rationale and justification establishes to the satisfaction of the relevant IC Director that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. Exclusion under other circumstances may be made by the Director, NIH, upon the recommendation of an IC Director based on a compelling rationale and justification. Cost is not an acceptable reason for exclusion except when the study would duplicate data from other sources. Women of childbearing potential should not be routinely excluded from participation in clinical research. All NIH-supported biomedical and behavioral research involving human subjects is defined as clinical research. This policy applies to research subjects of all ages.

The inclusion of women and members of minority groups and their subpopulations must be addressed in developing a research design appropriate to the scientific objectives of the study. The Research Training Plan should describe the composition of the proposed study population in terms of sex/gender and racial/ethnic group, and provide a rationale for selection of such subjects. Such a plan should contain a description of the proposed outreach programs for recruiting women and minorities as participants. See http://grants.nih.gov/grants/funding/women_min/women_min.htm.

### 2.1.4 NIH Policy on Reporting Race and Ethnicity Data: Subjects in Clinical Research

See NIH Policy on Reporting Ethnicity/Race and Sex/Gender in Clinical Research in Part II, 5.8.

The Office of Management and Budget (OMB) defines minimum standards for maintaining, collecting, and presenting data on race and ethnicity for all grant, contract, and intramural proposals and for all active research grants, cooperative agreements, contracts, and intramural projects. The minimum standards are described in the 1997 OMB Directive 15, http://www.whitehouse.gov/omb/fedreg/ombdir15.html.

The standards were revised in 1997 and include two ethnic categories (Hispanic or Latino, and Not Hispanic or Latino) and five racial categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White). The categories in this classification are social-political constructs and should not be interpreted as being anthropological in nature. NIH is required to use these definitions to allow comparisons to other Federal databases, especially the census and national health databases. Federal agencies will not present data on detailed categories if doing so would compromise data quality or confidentiality standards.

Collection of this information and use of these categories is required for research that meets the NIH definition of clinical research. See Part II, 5.8 for additional information.

### 2.1.5 NIH Policy on Inclusion of Children

Research involving children (see definition of "child") must comply with the NIH Policy and Guidelines on the Inclusion of Children in Clinical Research. Investigators should obtain full copies of the Policy and Guidelines from NIH staff, or from http://grants.nih.gov/grants/funding/children/children.htm.

NIH policy requires that children (i.e., individuals under the age of 21) must be included in all clinical research, conducted or supported by the NIH unless there are clear and compelling reasons not to include them. Therefore, proposals for clinical research must include a description of plans for

including children. If children will be excluded from the research, the application or proposal must present an acceptable justification for the exclusion.

The involvement of children as subjects in research must be in compliance with all applicable subparts of 45 CFR Part 46 as well as with other pertinent Federal laws and regulations.

IRBs have special review requirements to protect the well-being of children who participate in research. These requirements relate to risk, benefit, parental/guardian consent, and assent by children, and to research involving children who are wards of the state or of another institution. The local IRB approves research that satisfies the conditions set forth in the regulations.

### 2.1.6 ClinicalTrials.gov

In signing the application Face Page, the Authorized Organizational Representative of the applicant organization assures compliance with Public Law 110-85, enacted 09/27/2007, if applicable (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:publ085.110.pdf). The law amends the Public Health Service Act to expand the scope of clinical trials that must be registered in ClinicalTrials.gov. It also increases the number of registration fields that must be submitted, requires certain results information to be included, and sets penalties for noncompliance.

The trials that must be registered are called “applicable clinical trials.” Under the statute these trials generally include: (1) Trials of Drugs and Biologics: Controlled, clinical investigations, other than Phase 1 investigations, of a product subject to FDA regulation; and (2) Trials of Devices: Controlled trials with health outcomes, other than small feasibility studies, and pediatric postmarket surveillance. NIH encourages registration of ALL trials whether required under the law or not.

For additional information see NIH Guide Notices at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-014.html and http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-023.html.

## 2.2 Vertebrate Animals

The *PHS Policy on Humane Care and Use of Laboratory Animals* (PHS Policy) mandates that an approved Animal Welfare Assurance must be on file with the Office of Laboratory Animal Welfare (OLAW) at the time of award for all grantee organizations receiving PHS support to conduct research using live vertebrate animals. The PHS Policy requires grantee organizations to establish appropriate policies and procedures to ensure the humane care and use of animals. The PHS policy stipulates that the grantee organization, whether domestic or foreign, bears responsibility for the humane care and use of animals in PHS supported research activities. This policy incorporates the *U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training* and requires that institutions base their animal care and use programs on the *Guide for the Care and Use of Laboratory Animals*. This policy does not supersede state or local laws or regulations that impose more stringent standards for the care and use of laboratory animals. All institutions are required to comply with the applicable regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act and other federal statutes and regulations relating to animals. These documents are available from the Office of Laboratory Animal Welfare, National Institutes of Health, Bethesda, MD 20892, (301) 496-7163 (http://grants.nih.gov/grants/olaw/olaw.htm).

The PHS policy defines *animal* as any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes including custom antibody preparation.

In addition to an approved Animal Welfare Assurance, the grantee organization must provide verification that the Institutional Animal Care and Use Committee (IACUC) has reviewed and approved the proposed activity. IACUC approval must be dated within the last three years in order to be valid. IACUCs are not authorized to administratively extend approval beyond three years. Verification of IACUC approval is requested under Just-in-Time policy (prior to award) (see 1.5). Foreign grantees receiving direct support are not required to provide IACUC approval, but must have an approved Assurance.

Under consortium (subaward) agreements in which the grantee collaborates with one or more other organizations, the grantee, as the direct and primary recipient of NIH grant funds, is accountable for the performance of the project, the appropriate expenditure of grant funds by all parties, and all other obligations of the grantee as specified in the NIHGPS (See NIH GPS, Part II, Terms and Conditions of NIH Grant Awards, Consortium Agreements). The animal welfare requirements that apply to grantees also apply to consortium participants and subprojects. The prime grantee is responsible for including these requirements in its agreements with collaborating organizations, and for ensuring that all sites engaged in research involving the use of live vertebrate animals have an approved Animal Welfare Assurance and that the activity has a valid IACUC approval.

If the prime grantee does not have an Animal Welfare Assurance and the animal work will be conducted at an institution with an Assurance, the grantee must obtain an Inter-institutional Assurance from OLAW. When the grantee is a domestic institution and there is a foreign Project/Performance Site using animals, the grantee must ensure that the Project/Performance Site has an approved Assurance and must provide verification of IACUC approval by the domestic grantee's IACUC. This is to certify to NIH that the activity as conducted at the foreign Project/Performance Site is acceptable to the grantee organization. Foreign applicant organizations applying for PHS awards for activities involving vertebrate animals must comply with the Council for International Organizations of Medical Sciences' *International Guiding Principles for Biomedical Research Involving Laboratory Animals* (http://www.cioms.ch/frame_1985_texts_of_guidelines.htm ) and all laws, regulations and policies governing the care and use of laboratory animals in the jurisdiction in which the research will be conducted.

## 2.3 Debarment and Suspension

Executive Order 12549, "Debarment and Suspension," mandated development of a Government-wide debarment and suspension system for nonprocurement transactions with Federal agencies. Executive Order 12689 and Section 2455 of the Federal Acquisition Streamlining Act of 1994 further required Federal agencies to establish regulations for reciprocal Government-wide effect across procurement and nonprocurement debarment and suspension actions. This reciprocity rule is effective for any debarment, suspension or other Government-wide exclusion initiated on or after August 25, 1995.

DHHS regulations implementing Executive Orders 12549 and 12689 and Section 2455 of the Federal Acquisition Regulation are provided in 2 CFR 180 and 376, "Government-wide Debarment and Suspension (Nonprocurement)." Changes in this Government-wide requirement implement this as a term and condition of an award. For Kirschstein-NRSA Individual Fellowships, this policy applies to the individual applicant as well as the sponsoring institution.

## 2.4 Drug-Free Workplace

DHHS regulations implementing the Drug-Free Workplace Act of 1988 (Public Law 100-690, Title V, Subtitle D) are now provided in 45 CFR 82, "Government-wide Requirements for Drug-Free Workplace (Financial Assistance)." Changes in this Government-wide requirement (adopted in the

November 26, 2003 Federal Register Notice) now implement this as a term and condition of an award.

## 2.5 Lobbying

Organizations described in section 501(c)4 of the Internal Revenue Code of 1968 that engage in lobbying are not eligible to receive grant/cooperative agreement awards. This is not to be confused with 45 CFR Part 93, Section 1352, New Restrictions on Lobbying.

## 2.6 Non-Delinquency on Federal Debt

The Federal Debt Collection Procedure Act, 28 U.S.C. 3201 (e), provides that an organization or individual that is indebted to the United States, and has a judgment lien filed against it, is ineligible to receive a Federal grant. NIH cannot award a grant unless the authorized organizational official of the applicant organization (or individual as in the case of an individual Ruth L. Kirschstein National Research Service Award) certifies, by means of his/her signature on the application, that the organization is not delinquent in repaying any Federal debt. If the applicant discloses delinquency on a debt owed to the Federal Government, NIH may not award the grant until the debt is satisfied or satisfactory arrangements are made with the agency to which the debt is owed.

## 2.7 Research Misconduct

Each institution that receives or applies for a research, research training, or research-related grant or cooperative agreement under the Public Health Service Act must certify that the institution has established administrative policies as required by 42 CFR Part 93, “Public Health Service Policies on Research Misconduct.”

The signature of the official signing for the applicant organization on the Face Page of the application serves as certification that:

1. The institution will comply with the requirements of the PHS regulations for dealing with reporting possible research misconduct under 42 CFR Part 93;
2. The institution has established policies and procedures incorporating the provisions set forth in 42 CFR Part 93;
3. The institution will provide its policies and procedures to the Office of Research Integrity upon request; and
4. The institution will submit an Annual Report on Possible Research Misconduct (Form 6349). A copy of Form 6349, covering the previous year, will be automatically sent to all PHS awardees by the Office of Research Integrity each January.

Research Misconduct is defined by the Public Health Service as “fabrication, falsification or plagiarism in proposing, performing, or reviewing research, or in reporting research results.”

(a) Fabrication is making up data or results and recording or reporting them.

(b) Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

(c) Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.

(d) Research misconduct does not include honest error or differences of opinion.

For further information, please contact:

U.S. Dept of Health and Human Services
Office of Research Integrity
1101 Wootton Parkway, Suite 750
Rockville, MD 20852
AskORI@osophs.dhhs.gov
Phone: (240) 453-8200
Fax: (301) 443-5351.

## 2.8 Assurance of Compliance (Civil Rights, Handicapped Individuals, Sex Discrimination, Age Discrimination)

Before a grant award can be made, a domestic applicant organization must certify that it has filed with the DHHS Office for Civil Rights: an Assurance of Compliance (Form DHHS 690) with Title VI of the Civil Rights Act of 1964 (P.L. 88352, as amended), which prohibits discrimination on the basis of race, color, or national origin; Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, as amended), which prohibits discrimination on the basis of handicaps; Title IX of the Education Amendments of 1972 (P.L. 92-318, as amended), which prohibits discrimination on the basis of sex; and the Age Discrimination Act of 1975 (P.L. 94-135), which prohibits discrimination on the basis of age.

The Assurance of Compliance Form DHHS 690 is available from http://www.hhs.gov/ocr/ps690.pdf.

Assurance of Compliance Form DHHS 690 is now used in lieu of individual assurances: Form DHHS 441, Civil Rights; Form DHHS 641, Handicapped Individuals; Form DHHS 639-A, Sex Discrimination; and Form DHHS 680, Age Discrimination.

## 2.9 Research Involving Recombinant DNA, including Human Gene Transfer Research

The *National Institutes of Health Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines)* apply to all projects (NIH-funded and non-NIH-funded) involving recombinant DNA molecules that are conducted at or sponsored by an institution that receives NIH support for recombinant DNA research. As defined by the *NIH Guidelines,* recombinant DNA molecules are either: (1) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell; or (2) DNA molecules that result from the replication of those described in (1).

The *NIH Guidelines* set forth principles and standards for safe and ethical conduct of recombinant DNA research and apply to both basic and clinical research studies. The *NIH Guidelines* should be carefully reviewed and implemented to ensure that proper biosafety and containment practices are employed for all projects involving recombinant DNA research, including review by an Institutional Biosafety Committee that meets the requirements of the *NIH Guidelines*. More information about the NIH Guidelines and IBCs can be found at: http://www4.od.nih.gov/oba/IBC/IBCindexpg.htm. Further, the *NIH Guidelines,* in Appendix M, include special review and reporting requirements for the conduct of human gene transfer studies. Failure to comply with the *NIH Guidelines* may result in suspension, limitation, or termination of NIH funds for recombinant DNA research at the organization or a requirement for NIH prior approval of any or all recombinant DNA projects at the organization. A copy of the NIH Guidelines is posted at the following URL:

http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html and may be obtained from the NIH Office of Biotechnology Activities, 6705 Rockledge Drive, Suite 750, Bethesda, MD 20892, 301-496-9838. Additional information on the special requirements that pertain to human gene transfer can be found in a series of Frequently Asked Questions at: http://www4.od.nih.gov/oba/RAC/RAC_FAQs.htm.

## 2.10 Financial Conflict of Interest

NIH requires grantees and investigators (except Phase I SBIR/STTR applicants) to comply with the requirements of 42 CFR Part 50, Subpart F, "Responsibility of Applicants for Promoting Objectivity in Research for which PHS Funding is Sought." These requirements promote objectivity in research by establishing standards to ensure there is no reasonable expectation that the design, conduct, or reporting of research funded under PHS grants or cooperative agreements will be biased by any conflicting financial interest of an investigator.

The signature of the authorized organizational official on the Face Page of the application serves as certification of compliance with the requirements of 42 CFR Part 50, Subpart F, including that:

1. There is in effect at the organization a written and enforced administrative process to identify and manage, reduce, or eliminate conflicting financial interests with respect to research projects for which NIH funding is sought.
2. Prior to the expenditure of any NIH funds awarded under a new award, the organization will inform NIH of the existence of any conflicting financial interests of the type covered by 42 CFR 50.605 and assure that the interest has been managed, reduced, or eliminated in accordance with the regulations.
3. The Institution will continue to make similar reports on subsequently identified conflicts within 60 days of identification.
4. When the Institution determines that a financial conflict of interest exists (see #2 and #3 above), the institution must notify the NIH awarding component Chief Grants Management Officer of its existence and provide the following information:

   Grant number and Principal Investigator;

   Name of Investigator with FCOI; and

   Distinguish which method was used to protect the involved PHS funded research from bias (i.e., managed, reduced, or eliminated).
5. When requested, the institution will make information available to NIH regarding all identified conflicting interests and how those interests have been managed, reduced, or eliminated to protect the research from bias.

## 2.11 Smoke-Free Workplace

The PHS strongly encourages all grant recipients to provide a smoke-free workplace and to promote the non-use of all tobacco products. In addition, Public Law 103-227, the Pro-Children Act of 1994, prohibits smoking in certain facilities (or in some cases, any portion of a facility) in which regular or routine education, library, day care, health care, or early childhood development services are provided to children. This is consistent with the PHS mission to protect and advance the physical and mental health of the American people.

## 2.12 Prohibited Research

NIH Appropriation Acts have limited the use of NIH funding for a number of years and typically continue the same limitations from year to year. These legislative mandates appear in the Public Law 110-005 that authorizes NIH appropriations:

**BAN ON FUNDING OF HUMAN EMBRYO RESEARCH**

NIH is prohibited from using appropriated funds to support human embryo research. Grant, cooperative agreement, and contract funds may not be used for: "(a)…(1) the creation of a human embryo or embryos for research purposes; or (2)research in which a human embryo or embryos are destroyed, discarded, or knowingly subjected to risk of injury or death greater than that allowed for research on fetuses in utero under 45 CFR Part 46.208(a)(2) and section 498(b) of the Public Health Service Act (42 U.S.C. 289g(b)). (b) For purposes of this section, the term `human embryo or embryos' includes any organism not protected as a human subject under 45 CFR Part 46 as of the date of the enactment of this Act, that is derived by fertilization, parthenogenesis, cloning, or any other means from one or more human gametes or human diploid cells."

The NIH has published final guidelines on the allowability of Federal funds to be used for research on existing human embryonic stem cell lines at http://stemcells.nih.gov/index.asp.

**LIMITATION ON USE OF FUNDS FOR PROMOTION OF LEGALIZATION OF CONTROLLED SUBSTANCES**

"(a) None of the funds made available in this Act may be used for any activity that promotes the legalization of any drug or other substance included in schedule I of the schedules of controlled substances established by section 202 of the Controlled Substances Act (21 U.S.C.812). (b)The limitation in subsection (a) shall not apply when there is significant medical evidence of a therapeutic advantage to the use of such drug or other substance or that federally sponsored clinical trials are being conducted to determine therapeutic advantage."

**RESTRICTION ON DISTRIBUTION OF STERILE NEEDLES**

"Notwithstanding any other provision of this Act, no funds appropriated under this Act shall be used to carry out any program of distributing sterile needles or syringes for the hypodermic injection of any illegal drug."

**RESTRICTION ON ABORTIONS**

"(a) None of the funds appropriated under this Act, and none of the funds in any trust fund to which funds are appropriated under this Act, shall be expended for any abortion."

## 2.13 Select Agent Research

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (P.L. 107-188) is designed to provide protection against misuse of select agents and toxins whether inadvertent or the result of terrorist acts against the United States homeland or other criminal acts. The Act was implemented, in part, through regulations published by CDC at 42 CFR 73 http://www.cdc.gov/od/sap/pdfs/42_cfr_73_final_rule.pdf, Select Agents and Toxins.

As a term of award, grantees who conduct research involving Select Agents (see 42 CFR 73 for the list; and 7 CRF 331 and 9 CFR 121 for the relevant animal and plant pathogens) are reminded that

they must complete registration with CDC (or USDA, depending on the agent) before using NIH funds. No funds can be used for research involving Select Agents if the final registration certificate is denied.

In addition to the above requirements, research involving **both select agents and recombinant DNA** is also subject to the NIH Guidelines for Research Involving DNA Molecules (NIH Guidelines) (see Section 2.9 Research Involving Recombinant DNA, including Human Gene Transfer Research in this subsection for applicability of these guidelines).

For additional information regarding Select Agent research, see the following websites maintained by NIH, CDC, and USDA:

NIH Office of Extramural Research Select Agent Information:
http://grants.nih.gov/grants/policy/select_agent/

Center for Disease Control Select Agent Program:
http://www.cdc.gov/od/sap/index.htm

Center for Disease Control Select Agent Program Guidelines:
http://www.cdc.gov/od/sap/guidelines.htm

Center for Disease Control Select Agent Program Public Laws and Regulations:
http://www.cdc.gov/od/sap/regulations.htm

Center for Disease Control Select Agent Program Related Links:
http://www.cdc.gov/od/sap/regulations.htm

Animal and Plant Health Inspection Service (APHIS) Select Agent Program:
http://www.aphis.usda.gov/programs/ag_selectagent/

## 2.14 Fellow and Sponsor Assurance

The signature of the Fellow and Sponsor is no longer required as a part of a submitted Fellowship application. Instead, a new compliance requirement is now implemented whereby the applicant organization agrees to secure and retain at the organization a written assurance from the Fellow and Sponsor prior to submitting an application to the PHS. While this assurance is no longer required as part of the submitted application, it remains a compliance requirement. Therefore, organizations must retain a unique signature and date for each submitted application. This assurance must be available to the sponsoring agency or other authorized HHS or Federal officials upon request. Such an assurance must include at least the following certifications: (1) that the information submitted within the application is true, complete and accurate to the best of the Fellow's and Sponsor's knowledge; (2) that any false, fictitious, or fraudulent statements or claims may subject the Fellow and Sponsor to criminal, civil, or administrative penalties; (3) that the Sponsor will provide appropriate training, adequate facilities, and supervision if a grant is awarded as a result of the application; (4) that the Fellow has read the Ruth L. Kirschstein National Research Service Award Payback Assurance (See link below, section I. Service Requirement) and will abide by the Assurance if an award is made; and (5) that the award will not support residency training.

Other helpful links:

Guide Notice for Payback Obligation: http://grants.nih.gov/grants/guide/notice-files/not93-201.html

Full Payback Agreement: http://grants.nih.gov/grants/funding/416/phs6031.doc

## 2.15 Impact of Grant Activities on the Environment and Historic Properties

All NIH grants, whether or not they include construction or major alteration and renovation activities, are subject to the requirements of the National Environmental Policy Act of 1969 (ACT), as amended. This Act requires Federal agencies to consider the probable environmental consequences of all grant-supported activities. As part of NIH's implementation of this Act, grantees are required to promptly notify NIH of any probable impacts on the environment from grant-supported activities, or certify that no such activities exist upon receipt of a grant award. This requirement is in addition to the other public policy requirements for grants for construction and alteration and renovation activities discussed more fully in the NIH Grants Policy Statement Construction Grants – Public Policy Requirements and Objectives.

Additionally, all NIH grant awards should not involve activities that violate provisions of the National Historic Preservation Act of 1966 or other statutory requirements. All grantees are subject to the requirements of Executive Order 13287 – Preserve America, requiring notification to NIH of all activities that would affect any historic property, or certification that no impact will occur upon receipt of the grant award or in a post-award action without NIH prior approval. For the purposes of the Order, historic property is defined to include any prehistoric or historic district, site, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

# 3. Definitions

**AHRQ.** Agency for Healthcare Research and Quality, which is a component of HHS.

**AIDS Related.** Includes: (1) projects relating to the etiology, epidemiology, natural history, diagnosis, treatment, or prevention of AIDS; (2) various sequelae specifically associated with the syndrome; and (3) preparation and screening of anti-AIDS agents as well as vaccine development, including both preclinical and clinical studies. Not all applications examining various influences on T-lymphocytes or retroviruses will be appropriate for the expedited AIDS review process. Applications only indirectly related to AIDS will be evaluated by established Scientific Review Groups (SRGs) appropriate to the scientific discipline during regular NIH review cycles and should not be submitted in response to the expedited AIDS receipt dates. Applicants are urged to take note of the yearly NIH Plan for HIV-Related Research and indicate how their application addresses the NIH priorities set forth in that Plan. The Plan can be found on the NIH Office of AIDS Research homepage.

**Animal.** Any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes at the applicant organization, any collaborating site, or other Project/Performance Site.

**Applicant Organization Types.**

*Federal:* A cabinet-level department or independent agency of the Executive Branch of the Federal Government or any component part of such a department or agency that may be assigned the responsibility for carrying out a grant-supported program.

*State:* Any agency or instrumentality of a state government of any of the United States or its territories.

*Local:* Any agency or instrumentality of a political subdivision of government below the State level.

*Nonprofit:* An institution, corporation, or other legal entity no part of whose net earnings may lawfully inure to the benefit of any private shareholder or individual.

*For profit:* An institution, corporation, or other legal entity, which is organized for the profit or benefit of its shareholders or other owners. A "for profit" organization is considered to be a small business if it is independently owned and operated, if it is not dominant in the field in which research is proposed, and if it employs no more than 500 persons. Also see definition for Small Business Concern.

*Small Business Concern:* A small business concern is one that, at the time of award of Phase I and Phase II, meets **all** of the following criteria:

1. Is independently owned and operated, is not dominant in the field of operation in which it is proposing, has its principal place of business located in the United States, and is organized for profit.
2. Is at least 51% owned and controlled by either: (a) one or more natural persons (individuals who are citizens of, or permanent resident aliens in, the United States); or (b) another for-profit business concern that is itself at least 51% owned and controlled by one or more natural persons (individuals who are citizens of, or permanent resident aliens in, the United States)(See 13 CFR 121.105 (defining "business concern")).
3. Has, including its affiliates, *a number of employees not exceeding 500*, and meets the other regulatory requirements found in 13 CFR Part 121. Business concerns, other than investment

companies licensed, or state development companies qualifying under the Small Business Investment Act of 1958, 15 U.S.C. 661, et seq., are affiliates of one another when either directly or indirectly, (a) one concern controls or has the power to control the other; or (b) a third-party/parties controls or has the power to control both.

Control can be exercised through common ownership, common management, and contractual relationships. The term "affiliates" is defined in greater detail in 13 CFR Part 121, as is the process for calculating "number of employees."

Business concerns include, but are not limited to, any individual (sole proprietorship), partnership, corporation, joint venture, association, or cooperative. Further information may be obtained by contacting the Small Business Administration Size District Office at http://www.sba.gov/size/.

*Socially and Economically Disadvantaged Small Business Concern:* A socially and economically disadvantaged small business concern is one that is at least 51% owned by (a) an Indian tribe or a native Hawaiian organization, or (b) one or more socially and economically disadvantaged individuals; **and** whose management and daily business operations are controlled by one or more socially and economically disadvantaged individuals.

*Women-Owned Small Business Concern:* A small business concern that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

**CFR.** Code of Federal Regulations.

**Clinical Trial.** See Human Subjects Research Definitions and Terms.

**Coded.** See Human Subjects Research Definitions and Terms

**Competing Continuation Application**. A request for financial assistance to extend for one or more additional budget periods a project period that would otherwise expire. Competing continuation applications compete with other competing continuation, competing supplemental, and new applications for funds.

**Essentially Equivalent Work.** This term is meant to identify "scientific overlap," which occurs when (1) substantially the same research is proposed for funding in more than one contract proposal or grant application submitted to the same Federal agency; **or** (2) substantially the same research is submitted to two or more different Federal agencies for review and funding consideration; **or** (3) a specific research objective and the research design for accomplishing that objective are the same or closely related in two or more proposals or awards, regardless of the funding source.

**Grant.** A financial assistance mechanism providing money, property, or both to an eligible entity to carry out an approved project or activity. A grant is used whenever the NIH Institute or Center anticipates no substantial programmatic involvement with the recipient during performance of the financially assisted activities.

**HHS.** U.S. Department of Health and Human Services.

**Human Subjects Research Definitions and Terms.**

*Autopsy Materials.* The use of autopsy materials is governed by applicable federal, state and local law and is not directly regulated by 45 CFR Part 46.

*Child.* The NIH Policy on Inclusion of Children defines a child as an individual under the age of 21 years. The intent of the NIH policy is to provide the opportunity for children to participate in research studies when there is a sound scientific rationale for including them, and their participation benefits children and is appropriate under existing Federal guidelines. Thus, children must be included in NIH conducted or supported clinical research unless there are scientific and ethical reasons not to include them.

DHHS Regulations (45 CFR Part 46, Subpart D, Sec.401-409) provide additional protections for children involved as subjects in research, based on this definition: "Children are persons who have not attained the legal age for consent to treatments or procedures involved in research, under the applicable law of the jurisdiction in which the research will be conducted." Generally, state laws define what constitutes a "child." Consequently, the age at which a child's own consent is required and sufficient to participate in research will vary according to state law. For example, some states consider a person age 18 to be an adult and therefore one who can provide consent without parental permission.

*Clinical Research.* NIH defines human clinical research as research with human subjects that is: (1) Patient-oriented research. Research conducted with human subjects (or on material of human origin such as tissues, specimens and cognitive phenomena) for which an investigator (or colleague) directly interacts with human subjects. Excluded from this definition are *in vitro* studies that utilize human tissues that cannot be linked to a living individual. Patient-oriented research includes: (a) mechanisms of human disease, (b) therapeutic interventions, (c) clinical trials, or (d) development of new technologies. (2) Epidemiologic and behavioral studies. (3) Outcomes research and health services research. Note: Studies falling under Exemption 4 for human subjects research are not considered clinical research by this definition.

*Clinical Trial.* The NIH defines a *clinical trial* as a prospective biomedical or behavioral research study of human subjects that is designed to answer specific questions about biomedical or behavioral interventions (drugs, treatments, devices, or new ways of using known drugs, treatments, or devices).

Clinical trials are used to determine whether new biomedical or behavioral interventions are safe, efficacious, and effective.

Behavioral human subjects research involving an intervention to modify behavior (diet, physical activity, cognitive therapy, etc.) fits this definition of a clinical trial.

Human subjects research to develop or evaluate clinical laboratory tests (e.g. imaging or molecular diagnostic tests) might be considered to be a clinical trial if the test will be used for medical decision making for the subject or the test itself imposes more than minimal risk for subjects.

Biomedical clinical trials of experimental drug, treatment, device or behavioral intervention may proceed through four phases:

*Phase I* clinical trials test a new biomedical intervention in a small group of people (e.g., 20-80) for the first time to evaluate safety (e.g., to determine a safe dosage range and to identify side effects).

*Phase II* clinical trials study the biomedical or behavioral intervention in a larger group of people (several hundred) to determine efficacy and to further evaluate its safety.

*Phase III* studies investigate the efficacy of the biomedical or behavioral intervention in large groups of human subjects (from several hundred to several thousand) by comparing the intervention to other standard or experimental interventions as well as to monitor adverse effects, and to collect information that will allow the intervention to be used safely.

*Phase IV* studies are conducted after the intervention has been marketed. These studies are designed to monitor effectiveness of the approved intervention in the general population and to collect information about any adverse effects associated with widespread use.

*NIH-Defined Phase III Clinical Trial*. An NIH-defined Phase III clinical trial is a broadly based prospective Phase III clinical investigation, usually involving several hundred or more human subjects, for the purpose of evaluating an experimental intervention in comparison with a standard or controlled intervention or comparing two or more existing treatments. Often the aim of such investigation is to provide evidence leading to a scientific basis for consideration of a change in health policy or standard of care. The definition includes pharmacologic, non-pharmacologic, and behavioral interventions given for disease prevention, prophylaxis, diagnosis, or therapy. Community trials and other population-based intervention trials are also included.

*Coded.* With respect to private information or human biological specimens, *coded* means that:

(1) identifying information (such as name or social security number) that would enable the investigator to readily ascertain the identity of the individual to whom the private information or specimens pertain has been replaced with a number, letter, symbol or combination thereof (i.e., the code); and

(2) a key to decipher the code exists, enabling linkage of the identifying information with the private information or specimens.

Research that involves only coded private information/data or coded human biological specimens may not constitute human subjects research under the DHHS human subjects regulations (45 CFR 46) if:

- the specimens and/or information/data are not obtained from an interaction/intervention with the subject specifically for the research; and
- the investigator(s) cannot readily ascertain the identity of the individual(s) to whom the coded private information or specimens pertain (e.g., the researcher's access to subject identities is prohibited).

Individuals who provide coded information or specimens for proposed research and who also collaborate on the research involving such information or specimens are considered to be involved in the conduct of human subjects research.

(See the following guidance from the Office for Human Research Protections (OHRP) for additional information and examples: http://www.hhs.gov/ohrp/humansubjects/guidance/cdebiol.pdf.)

*Data and Safety Monitoring Plan.* For each clinical trial, NIH requires a data and safety monitoring plan that will provide oversight and monitoring to ensure the safety of participants and the validity and integrity of the data. The level of monitoring should be commensurate with the risks and the size and complexity of the clinical trial. A detailed data and safety monitoring plan must be submitted to the applicant's IRB and subsequently to the funding IC for approval prior to the accrual of human subjects. The reporting of Adverse Events must be reported to the IRB, the NIH funding Institute or Center, and other required entities. This policy requirement is in addition to any monitoring requirements imposed by 45 CFR Part 46.

*Data and Safety Monitoring Board (DSMB).* NIH requires the establishment of a Data and Safety Monitoring Board (DSMB) for multi-site clinical trials involving interventions that entail potential risk to the participants, *and generally for Phase III clinical trials*.

*Exemptions.* The six categories of research exempt from the DHHS human subject regulations are:

*Exemption 1:* Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

*Exemption 2:* Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless:

(i) information obtained is recorded in such a manner that human subjects can be identified directly or through identifiers linked to the subjects and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Exemption 2 for research involving survey or interview procedures or observation of public behavior, does not apply to research with children (see **45 CFR Part 46, Subpart D**), except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

*Exemption 3:* Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

*Exemption 4:* Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

The humans subjects regulations decision charts (http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm) of the Office of Human Research Protection (OHRP) will determine whether the research falls under the human subjects regulations and if so, whether it meets the criteria for Exemption 4. The NIH Office of Extramural Research website also contains information that is helpful for determining whether human subjects research meets the criteria for Exemption 4. See http://grants.nih.gov/grants/policy/hs/index.htm.

Research that meets the criteria for Exemption 4 is not considered "clinical research" as defined by NIH. Therefore the NIH policies for inclusion of women, minorities and children in clinical research, and targeted/planned enrollment tables, do not apply to research projects covered by Exemption 4.

*Exemption 5:* Research and demonstration projects that are conducted by or subject to the approval of Department or Agency heads and that are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs (ii) procedures for obtaining benefits or services under those programs (iii) possible changes in or alternatives to those programs or procedures or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

*Exemption 6:* Taste and food quality evaluation and consumer acceptance studies (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural, chemical, or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

*Gender.* Refers to the classification of research subjects into either or both of two categories: women and men. In some cases, representation is unknown because gender composition cannot be accurately determined (e.g., pooled blood samples or stored specimens without gender designation).

*Human Subjects.* The DHHS regulations "Protection of Human Subjects" (45 CFR 46, administered by OHRP) define a *human subject* as a living individual about whom an *investigator* conducting *research obtains*:

- data through *intervention* or *interaction* with the individual or
- *identifiable private information.*

Italicized words and phrases in the definition of human subjects are defined as follows:

*Investigator.* The OHRP considers the term investigator to include anyone involved in conducting the research. OHRP does not consider the act of solely providing coded private information or specimens (for example, by a tissue repository) to constitute involvement in the conduct of the research. However, if the individuals who provide *coded* information or specimens also collaborate on other activities related to the conduct of the research with the investigators who receive such information or specimens, they will be considered to be involved in the conduct of the research. (See OHRP's 2004 Coded Specimen Guidance.)

*Research.* DHHS regulations define *research* at 45 CFR 46.102(d) as follows:
*Research* means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities.

*Obtains.* In its guidance for use of coded specimens, OHRP has determined that under the definition of human subject at 45 CFR 46.102(f), *obtaining* identifiable private information or identifiable specimens for research purposes constitutes human subjects research. *Obtaining* means receiving or accessing identifiable private information or identifiable specimens for research purposes. OHRP interprets *obtaining* to include an investigator's use, study, or analysis for research purposes of *identifiable private information* or identifiable specimens already in the possession of the investigator.

*Intervention* includes both physical procedures by which data are gathered (for example, venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. (45 CFR 46.102(f))

*Interaction* includes communication or interpersonal contact between investigator and subject. (45 CFR 46.102(f))

*Private information* includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information that has been provided for specific purposes by an individual and that the individual can

reasonably expect will not be made public (for example, a medical record). Private information must be *individually identifiable* (i.e., the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects. (45 CFR 46.102(f))

*Individually Identifiable Private Information.* According to its guidance for use of coded specimens, OHRP generally considers private information or specimens to be *individually identifiable* as defined at 45 CFR 46.102(f) when they can be linked to specific individuals by the investigator(s) either directly or indirectly through *coding* systems. Conversely, OHRP considers private information or specimens not to be individually identifiable when they cannot be linked to specific individuals by the investigator(s) either directly or indirectly through coding systems.

**Significant Difference.** For purposes of NIH policy, a "significant difference" is a difference that is of clinical or public health importance, based on substantial scientific data. This definition differs from the commonly used "statistically significant difference," which refers to the event that, for a given set of data, the statistical test for a difference between the effects in two groups achieves statistical significance. Statistical significance depends upon the amount of information in the data set. With a very large amount of information, one could find a statistically significant, but clinically small difference that is of very little clinical importance. Conversely, with less information one could find a large difference of potential importance that is not statistically significant.

**Valid Analysis.** This term means an unbiased assessment. Such an assessment will, on average, yield the correct estimate of the difference in outcomes between two groups of subjects. Valid analysis can and should be conducted for both small and large studies. A valid analysis does not need to have a high statistical power for detecting a stated effect. The principal requirements for ensuring a valid analysis of the question of interest are: allocation of study participants of both sexes/genders (males and females) and from different racial/ethnic groups to the intervention and control groups by an unbiased process such as randomization; unbiased evaluation of the outcome(s) of study participants; and use of unbiased statistical analyses and proper methods of inference to estimate and compare the intervention effects among the gender and racial/ethnic groups.

**IC.** An Institute or Center of the National Institutes of Health.

**Innovation.** Something new or improved, including research for (1) development of new technologies, (2) refinement of existing technologies, or (3) development of new applications for existing technologies. For the purposes of PHS programs, an example of “innovation” would be new medical or biological products for improved value, efficiency, or costs.

**Institutional Review Board (IRB).** A committee at the sponsoring institution that is required to review and approve all non-exempt research activities involving human subjects.

**Noncompeting Continuation Application.** A request for financial assistance for a second or subsequent budget period within a previously approved project period.

**NRSA Individual Fellowship.** Ruth L. Kirschstein National Research Service Award provided to individuals for research training in biomedical and behavioral research.

**OHRP.** Office for Human Research Protections.

**OLAW.** Office of Laboratory Animal Welfare.

**Payback.** Requirement that the recipient engage in biomedical or behavioral health-related research and/or health-related teaching or subsequent Kirschstein-NRSA-supported research training for a period equal to the period during which he or she received a postdoctoral Kirschstein-NRSA fellowship up to and including 12 months or, if more than 12 months, in the 13th month and each

subsequent month of Kirschstein-NRSA-supported postdoctoral research training, or else reimburse the Government for the Kirschstein-NRSA funds paid the during this period.

**Prototype.** A model of something to be further developed and includes designs, protocols, questionnaires, software, and devices.

**Research or Research and Development (R/R&D).** Any activity that is:

- A systematic, intensive study directed toward greater knowledge or understanding of the subject studied;
- A systematic study directed specifically toward applying new knowledge to meet a recognized need;
- A systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

**Resubmission Application.** (Formerly Revised/Amended Application). Resubmission of an unfunded application that has been changed significantly based on feedback from the initial peer review.

**Scientific Review Officer.** Health Scientist Administrator who manages a Scientific Review Group (SRG).

**Second-Level Review (Council).** Kirschstein- NRSA Individual Fellowship applications are not required by law to be reviewed by the pertinent NIH National Advisory Council; but they receive a second review by IC staff, who consider program relevance and the SRG's recommendation in advising the IC on funding.

**Socially and Economically Disadvantaged Individual.** A member of any of the following groups: Black Americans; Hispanic Americans; Native Americans; Asian-Pacific Americans; Subcontinent Asian Americans; other groups designated from time to time by the Small Business Administration (SBA) to be socially disadvantaged; or any other individual found to be socially and economically disadvantaged by SBA pursuant to Section 8(a) of the Small Business Act, 15 U.S.C. 637(a).

**Sponsor/Co-Sponsor.** One or more designated individual(s) responsible for providing the applicant with research training and career guidance throughout the grant award period.

**Sponsoring Institution.** Institution legally responsible for committing facilities for the Kirschstein-NRSA Individual Fellowship applicant and financially responsible for the use and disposition of fellowship funds.

**SRG.** Scientific Review Group or Study Section, which is a panel of primarily non-Federal scientific experts that provide the initial review for scientific merit of applications.

**Summary Statement.** Written record of an SRG's evaluation of an application. Following the SRG's review meeting, summary statements are available to applicants in the eRA Commons.

**United States.** The 50 states, territories and possessions of the U.S., Commonwealth of Puerto Rico, Trust Territory of the Pacific Islands, and District of Columbia.

# 4. General Information

## 4.1 Research Grant Mechanisms

The following table summarizes the Training and Career Development Program mechanisms NIH uses. For more detailed information, visit the OER website http://grants.nih.gov/grants/funding/funding_program.htm.

**Training, Fellowships and Career Development Programs**

| TYPE (MECHANISM) | DESCRIPTION |
|---|---|
| **Institutional Research Training Including Ruth L. Kirschstein National Research Service Awards (T32/T34/T35)**<br>http://grants.nih.gov/training/nrsa.htm | These awards are made to domestic institutions that have the facilities and faculty to provide for research training programs in scientific specialties. Grant funds may be used for personnel, equipment, supplies, trainee stipends (both pre- and postdoctoral), and related costs. See Part I, Section 8 Instructions for Preparing an Institutional Research Training Application. |
| **Individual Ruth L. Kirschstein National Research Service Award Fellowships) (NRSA: F30/F31/F32/F33)**<br>http://grants.nih.gov/training/nrsa.htm | These fellowships are awarded to qualified individuals at the predoctoral, postdoctoral, or senior investigator level to pursue full-time research training in designated biomedical or behavioral science areas. **NRSA APPLICANTS MUST USE PHS 416-1 FORMS/INSTRUCTIONS** (http://grants.nih.gov/grants/funding/416/phs416.htm) |
| **Career Development Award (K Award)**<br>http://grants.nih.gov/training/careerdevelopmentawards.htm | Among NIH components, several types of career development awards are available to research and academic institutions on behalf of scientists who require additional independent or mentored experience in a productive scientific environment in order to further develop their careers in independent biomedical or behavioral research. See Part I, Section 7 Preparing an Individual CDA Application. |

## 4.2 Mail Addressed to the National Institutes of Health

All United States Postal Service (USPS) mail addressed to the National Institutes of Health must use the unique NIH zip code 20892. All USPS mail addressed to the National Library of Medicine should use the unique NLM zip code of 20894. All mail using 20892 and 20894 zip codes will be cleared through the NIH North Stonestreet Mail Facility. This will ensure that special procedures and precautions will be used to screen the mail before it is delivered to the various NIH offices on and off campus. This is an important measure to provide for the safety of all individuals who must handle mail.

This procedure does not apply to commercial courier deliveries (i.e. FEDEX, UPS, DHL, etc.) of grant applications addressed to the Center for Scientific Review. The zip code for these deliveries is 20817.

All applications and other deliveries to the Center for Scientific Review must either come via courier delivery or the USPS.

NIH WILL NOT ACCEPT APPLICATIONS **DELIVERED BY INDIVIDUALS** TO THE CENTER FOR SCIENTIFIC REVIEW. This restriction does not apply to USPS or courier delivery personnel.

Mail addressed to NIEHS in North Carolina should continue to show zip code 27709.

## 4.3 Government Use of Information Under Privacy Act

The Privacy Act of 1974 (5 U.S.C. 552a) is a records management statute and regulates the collection, maintenance, use, and dissemination of personal information by Federal agencies. In accordance with the Act, the PHS is required to provide the following notification to each individual whom it asks to supply information.

The PHS maintains applications and grant records pursuant to its statutory authority for awarding grants. The purpose of the information collection is to aid in the review, award, and administration of PHS programs. Provision of information is voluntary; however, a lack of sufficient information may hinder the ability of the PHS to review applications, monitor grantee performance, or perform overall management of grant programs.

The Privacy Act authorizes discretionary disclosure of this information within the Department of Health and Human Services and outside the agency to the public, as required by the Freedom of Information Act and the associated DHHS regulations (45 CFR 5), including the Congress acting within its legislative authority, the National Archives, the General Accounting Office, the Bureau of Census, law enforcement agencies, and pursuant to a court order. Information also may be disclosed outside the Department, if necessary, for the following purposes:

1. To a Congressional office at the request of the record subject;
2. To the Department of Justice as required for litigation;
3. To the cognizant audit agency for auditing;
4. To qualified experts not within the definition of Department employees as prescribed in Department Regulations (45 CFR 5b.2) for opinions as part of the application review/award process;
5. For an authorized research purpose under specified conditions;
6. To contractors for the purpose of processing, maintaining, and refining records in the system. Contractors will be required to maintain Privacy Act safeguards with respect to such records;
7. To a Federal agency, in response to its request, in connection with the letting of a contract, or the issuance of a license, grant, or other benefit by the requesting agency, to the extent that the records are relevant and necessary to the requesting agency's decision on the matter; and
8. To the applicant organization in connection with the review of an application or performance or administration under the terms and conditions of the award, or in connection with problems that might arise in performance or administration if an award is made.

## 4.4 Information Available to the Program Director(s)/Principal Investigator(s)

Under the provisions of the Privacy Act, PD/PIs may request copies of records pertaining to their grant applications from the PHS component responsible for funding decisions. PD/PIs are given the

opportunity under established procedures to request that the records be amended if they believe they are inaccurate, untimely, incomplete, or irrelevant. If the PHS concurs, the records will be amended.

## 4.5 Information Available to the General Public

PHS makes information about grant awards available to the public, including the title of the project, the grantee institution, the PD/PI, and the amount of the award. The description on Form Page 2 of a funded research grant application is sent to the National Technical Information Service (NTIS), U.S. Department of Commerce, where the information is available to the public and used for the dissemination of scientific information and for scientific classification and program analysis purposes. In addition, NIH routinely places information about awarded grants, including project title, name of the PD/PI, and project description (abstract) in the CRISP system.

The Freedom of Information Act and implementing DHHS regulations (45 CFR Part 5) require the release of certain grant documents and records when requested by the public, regardless of the intended use of the information. These policies and regulations apply to information in the possession of NIH and generally do not require grantees to permit access to their records except as described in 4.6 Access to Research Data, below. Generally available for release upon request are: all funded grant applications and progress reports including their derivative funded noncompeting supplemental grant progress reports; pending and funded noncompeting continuation progress reports; progress reports of grantees; and final reports of any review or evaluation of grantee performance conducted or caused to be conducted by the DHHS. Generally **not** available for release to the public are: competing grant progress reports (new, Renewal, and Revision) for which awards have **not** been made; evaluative portions of site visit reports; and summary statements of findings and recommendations of review groups. Trade secrets and commercial, financial, or otherwise proprietary information may be withheld from disclosure. Information, which, if disclosed, would be a clearly unwarranted invasion of personal privacy, may also be withheld from disclosure. Although the grantee institution and the principal investigator will be consulted about any such release, the PHS will make the final determination. If a requested document contains both disclosable and nondisclosable information, the nondisclosable information will be deleted and the balance of the document will be released.

## 4.6 Access to Research Data

As required by regulation 45 CFR 74.36, grantees that are institutions of higher education, hospitals, or non-profit organizations must release “research data” first produced in a project supported in whole or in part with Federal funds if they are cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (i.e., regulations and administrative orders). The term “research data” is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings. It does not include preliminary analyses; drafts of scientific papers; plans for future research; peer reviews; communications with colleagues; physical objects (e.g., laboratory samples, audio or video tapes); trade secrets; commercial information; materials necessary to be held confidential by a researcher until publication in a peer-reviewed journal; information that is protected under the law (e.g., intellectual property); personnel and medical files and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy; or information that could be used to identify a particular person in a research study.

This requirement to release research data does not apply to commercial organizations or to research data produced by state or local governments. However, if a state or local governmental grantee contracts with an educational institution, hospital or non-profit organization, and the contract results in

covered research data, those data are subject to these disclosure requirements. See http://grants.nih.gov/grants/policy/data_sharing/index.htm.