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. 10/2005

Form Approved Through 10/31/2008
OMB No. 0925-0002

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Instructions

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IMPORTANT CHANGES

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CHANGES TO INSTRUCTIONS

In an effort to simplify the instructions, the PHS 416-1 has been restructured into three parts. Instructional information related to the preparation, submission and review of your application is included in this section, Part I. Information relating to human subjects research is in Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan. Information relating to policies and assurances, definitions and other *non-instructional* information is in Part III: Policies, Assurances, Definitions, and Other Information.

Font Requirement: NIH now *requires the use of an Arial, Helvetica, Palatino Linotype or Georgia typeface 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. 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.)

The application instructions have been significantly modified. Changes in instructions and reordering of information has occurred to make the 416-1 application as similar as possible to the PHS 398 in format. Instructions have also been modified to facilitate a truly collaborative effort between the applicant/fellow and his/her sponsor and co-sponsor, if any.

The number of sets of appendix material has been increased from three to five. Appendix material is not duplicated; therefore five sets are necessary so that an adequate number is available for peer reviewers and NIH staff.

CHANGES TO APPLICATION FORMS

A number of the Form Pages have been substantially modified from the previous (06/02) version. Data fields have been shifted and renumbered. Some have been consolidated into a new Biographical Sketch Format Page for the Applicant/Fellow. As a result of all these changes, a number of Form Pages have also been renumbered. Changes of note on specific form pages are itemized below.

Form Page 1: Face Page

Item 1. The length of the title has been increased to 81 characters.

Item 4b. eRA Commons User Name field has been added.

Item 9. Human Subjects Research box has been modified as follows:

- 9a: No/Yes check boxes for “Research Exempt”
- 9b: Human Subjects Assurance Number
- 9c: No/Yes checkboxes for Clinical Trial
- 9d: No/Yes checkboxes for NIH-Defined Phase III Clinical Trial

Item 10. Vertebrate Animals box has been modified as follows:

- 10a: If Yes, IACUC Approval Date (remains a Just-In-Time submission but may also be provided at time of submission if known)
- 10b: Animal Welfare Assurance Number

Sponsor/Co-Sponsor Contact Information. This information has been moved from the Face Page to Form Page 2.

Signatures. Signatures for the Sponsor and the Authorized Official of the Sponsoring Institution have been moved from the old Facilities and Commitment Page to the Face Page. The signature requirement for the Department Head has been eliminated.

Form Page 2

Sponsor/Co-Sponsor Contact Information. This information has been moved to Form Page 2 from the Face Page.

Description. As part of the Description, instructions have been added to succinctly (2-3 sentences) describe the relevance of the proposed research to public health. This component of the Description should be prepared using concise terms and plain language that can be understood by a general, lay audience.

Form Page 3

Training Sites. A new section has been added.

Human Embryonic Stem Cells. Instructions have been added regarding projects that involve human embryonic stem cells. Applicants must include the registration number of the specific cell line(s) from the stem cell registry (see http://stemcells.nih.gov/registry/index.asp).

Biographical Sketch Format Page for the Applicant/Fellow

A *new* biographical sketch format page has been created specifically for predoctoral and postdoctoral applicants. Much of the data previously requested on several Form Pages has now been consolidated into one concise Biographical Sketch. While this biosketch has many similarities to the traditional biographical sketch used in the PHS398, it includes some information that is unique only to applicants/fellows. Consequently, this particular biosketch should only be used when applying for an Individual Fellowship Application.

Biographical Sketch Format Page for the Sponsor and Co-Sponsor

A field has been added for the eRA Commons User Name.

Personal Data Form Page:

Applicants are now requested to provide *only* the last four digits of the Social Security Number. While providing this information remains voluntary, it is hoped that by limiting the data to only the last four digits, individuals will be more receptive to providing it. This data continues to provide the agency with vital information necessary for accurate identification, referral, and review of applications and for management of PHS grant programs.

Checklist Form Page:

- A field has been added for “Change of Sponsoring Institution.”
- A text entry field has been added to Section I.D. Tuition, Fees, & Health Insurance.

Reminders

- 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.
- 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 A-D). The remaining sections of the Research Training Plan have no maximum allowable pages, but should be succinct.
- Several elements of an application are no longer required at the time the application is submitted. Instead, this information will be 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.

FOREWORD

The PHS 416-1 instructions contain information for preparing applications for Ruth L. Kirschstein National Research Service Award (Kirschstein-NRSA) 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.

Not all of the Individual Fellowship levels are supported by each NIH Institute and Center (IC) 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 ICs or AHRQ will not be accepted for review or funding.*

Postdoctoral fellowships are provided by the NIH ICs and AHRQ.

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.)

Contact information can be found in the program announcement or request for applications and below in the Interactions with PHS Staff section.

The PHS 416-1 form pages are available in electronic PDF and MS Word format. Form pages are available separately on the NIH Web Site http://grants.nih.gov/grants/forms.htm. Sponsors and sponsoring institutions are encouraged to bookmark this site for future submissions.

This edition of the PHS 416-1 has been extensively rewritten and reorganized (like the PHS398) into three parts. Individuals applying for a fellowship (applicants) and sponsoring institutions will need to use all three parts of the instructions in order to prepare a complete and acceptable application.

Part I: Instructions for Preparing the Application

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

Part III: Policies, Assurances, Definitions and Other Information

Within each part are links to pertinent sections of the PHS 416-1 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 the Application

Section I:	Preparing your application
Section II:	Submission and review of your application
Section III:	Kirschstein-NRSA Fields of Training Codes
Section IV:	Kirschstein-NRSA Payback Assurance

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 E 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 10/2005) 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.

NIH 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.

The Division of Extramural Outreach and Information Resources (DEOIR) is the central source for general information about NIH extramural research and research training programs, funding mechanisms, the peer review system, and application procedures. Grants Information (GrantsInfo) is a communication service within the DEOIR. Information about the NIH extramural research and research training programs, funding opportunities, and the grant application process, can be obtained by e-mailing your request to: GrantsInfo@nih.gov or by calling (301) 435-0714.

Guidelines for Kirschstein-NRSA Individual Fellowships may be found on the NIH Web Site at http://grants.nih.gov/training/nrsa.htm.

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 NIH Staff Person

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

Grants Information

grants.nih.gov/grants/giwelcome.htm
E-mail: GrantsInfo@nih.gov
Telephone: (301) 435-0714

Grant Writing Tips and Frequently Asked Questions

http://www.nigms.nih.gov/funding/NRSA_faqs.html
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 HHS agencies.

NIH Office of Extramural Research Human Subjects Website

This site provides, in one place, HHS 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://www.csr.nih.gov/EVENTS/AssignmentProcess.htm
Telephone: (301) 435-0715
TTY: (301) 451-0088
Fax: (301) 480-1987

Specific Application: Before Review

Telephone or e-mail the Scientific Review Administrator named on the electronically-generated "notification of assignment" that is mailed to you upon assignment of your application.

Specific Application: Post Review

Telephone or e-mail the NIH Program Official named on the summary statement of your application.

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.

FUNDING OPPORTUNITY ANNOUNCEMENTS (PROGRAM ANNOUNCEMENTS AND REQUESTS FOR APPLICATIONS)

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, application receipt date, award provisions, and service payback provisions.

Definitions of PAs and RFAs 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 funding opportunities" (http://www.grants.gov/Find). 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, 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.

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.

BEFORE SUBMISSION

You may wish to contact NIH staff with a variety of questions before submitting an application.

Contact GrantsInfo and/or the Division of Receipt and Referral in CSR:

- To identify Institutes/Centers at NIH or other non-NIH agencies and a Scientific Review Group that might be appropriate for your application. This information can also be included 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 Institute/Center's (IC) or other non-NIH agency's programmatic area. This information can also be included in a cover letter at the time of application submission.
- To learn about programmatic areas of interest to the IC or other non-NIH agencies
- 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 Administrators in the Center for Scientific Review to discuss requesting assignment to a Scientific Review Group (SRG).

PHS Agency Contact Table

NATIONAL INSTITUTES OF HEALTH	
Fogarty International Center	301-496-1653
National Cancer Institute	301-496-3428
National Center for Complementary and Alternative Medicine	301-496-4792
National Center on Minority Health and Health Disparities	301-402-1366
National Center for Research Resources	301-496-6023
National Eye Institute	301-451-2020
National Heart, Lung, and Blood Institute	301-435-0260
National Human Genome Research Institute	301-496-7531
National Institute on Aging	301-496-9322
National Institute on Alcohol Abuse and Alcoholism	301-443-4375
National Institute of Allergy and Infectious Diseases	301-496-7291
National Institute of Arthritis and Musculoskeletal and Skin Diseases	301-594-2463
National Institute of Biomedical Imaging and Bioengineering	301-451-4792
National Institute of Child Health and Human Development	301-496-0104
National Institute on Deafness and Other Communication Disorders	301-496-1804

PHS Agency Contact Table	
National Institute of Dental and Craniofacial Research	301-594-4800
National Institute of Diabetes and Digestive and Kidney Diseases	301-594-8834
National Institute on Drug Abuse	301-443-2755
National Institute of Environmental Health Sciences	919-541-7723
National Institute of General Medical Sciences	301-594-4499
National Institute of Mental Health	301-443-3367
National Institute of Neurological Disorders and Stroke	301-496-4188
National Institute of Nursing Research	301-594-6906
National Library of Medicine	301-496-4621
CENTER FOR SCIENTIFIC REVIEW	301-435-0715 TTY (301) 451-0088
Study Section Information	
AGENCY FOR HEALTHCARE RESEARCH AND QUALITY	301-594-1447

AFTER SUBMISSION

If the initial assignment to an IC or SRG seems inappropriate, the applicant 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 Administrator 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 Administrator 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 applicant receives the summary statement, s/he may contact the appropriate IC or AHRQ program official (noted on the summary statement):

- 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

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 *PHS 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.

Both publications are available from the following NIH website: http://grants.nih.gov/grants/policy/policy.htm.

I. PREPARING YOUR APPLICATION

A. 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.

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.

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*.

B. General Instructions

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 301-451-0088; Fax: 301- 480-1987

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.

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 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.

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.

Application Paging

- 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 unnumbered pages.

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

- You may use a smaller type size 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

- Original application (signed by the applicant, sponsor, and sponsoring institution's 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 five collated sets as appendices. Full-sized glossy photographs may be included in the appendix; however, a photo copy 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.

Page Limitations and Content Requirements		
Section	**Page Limit**	**Content**
Applicant		
Research Proposal—Description (Form Page 2, Item 19)	Limited to space provided on form	Succinct and accurate description of proposed work when separated from application
Applicant/Fellow Biographical Sketch	4 (no limits on subsections)	See Instructions
Previous Research Experience (Form Page 5) Doctoral Dissertation and Other Research Experience	2	See Instructions
Research Training Plan Introduction **Sections A-D only** **(Sections E-K are not included in the 10-page limit)**	1 10	Required for Revised Applications only Text plus all figures and tables
Sponsor/Co-Sponsor		
Biographical Sketch	4 (per person)	May use Biographical Sketch in PHS 398

REVISED APPLICATIONS

NIH allows the submission of up to two revised applications but no longer restricts those submissions to a two-year timeframe. See NIH Policy on Submission of a Revised (amended) Application in Part III of the PHS 416-1.

Before a revised application can be submitted, the applicant must have received the Summary Statement from the previous review.

Acceptance of a revised application automatically withdraws the prior version, since two versions of the same application cannot be simultaneously pending.

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

Introduction to Revised Application. All revised (amended) 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*.

Research Training Plan of Revised Application. A revised application must include substantial changes. Identify the changes in the Research Training Plan clearly by bracketing, indenting, or changing typography, unless the changes are so extensive as to include most of the text. This exception should be explained in the Introduction. *Do not underline or shade changes*.

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

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

C. Specific Instructions for Applicant (Application Section I)

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. 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 Pages 2
- Form Page 3
- Form Page 4, Table of Contents
- Applicant/Fellow Biosketch
- Form Page 5, Previous Research Experience
- Research Training Plan, Sections A – K, some with sponsor consultation
- Checklist, Section I
- 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
Applicant/Fellow Biosketch C. Scholastic Performance	Special Instructions
Form Page 5, Item 26a & b, Thesis/Dissertation Title and Advisor. Item 27, Doctoral Dissertation and Other Research Experience	Omit Special Instructions
Checklist, Section I.C	Omit
Checklist, Section I.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 26a & b, Thesis/Dissertation Title and Advisor	Omit
Research Training Plan, Section J. Selection of Sponsor and Institution	Special Instructions
Checklist, Section I.C	Special Instructions
Checklist, Section I.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.

1. Face Page (Form Page 1) (MS Word or PDF)

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 *revised application or competing continuation* 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 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

Check the appropriate box. If you have been lawfully admitted for permanent residence, i.e., are in possession of an Alien Registration Receipt Card or other legal verification of such status, check the "Permanent Resident of U.S." box. If you have applied for and have not yet been granted admission as a permanent resident, check the same box but insert the word "Pending." To be eligible for a Kirschstein-NRSA Individual Fellowship, you 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. Before the award is issued, a permanent resident must submit a notarized statement that a notary has seen the applicant's Alien Registration Receipt Card or some other verification from the U.S. Immigration and Naturalization Service of legal admission to the U.S. as a permanent resident.

Item 5, Training Under Proposed Award

List the proposed area of research training according to the Fields of Training in Section III 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 24 (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 Section II.E 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

Questions in this section pertain to Part II**: Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan**.

Does your proposed research involve Human Subjects? See definition.

Research that involves obtaining private information or human biological specimens (such as blood and tissue samples) that are individually identifiable to the investigator(s) is considered human subjects research (45 CFR Part 46).

Research that involves only coded private information/data or coded human biological specimens may or may not constitute human subjects research under the HHS human subject regulations (45 CFR Part 46). See Part II: Question 1.

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 sponsoring institution or at any other performance site or collaborating institution.

"Yes" should be checked even if the research is exempt from regulations for the protection of human subjects (see Exemption Categories).

Indefinite Project

Check "Indefinite" if at the time of application plans to involve human subjects are unknown. If an award is made, the fellow may not participate in human subjects research until an updated research training plan, including section 7.E "Human Subjects Research" is submitted and approved by the awarding component. Such a plan must be developed in consultation with the sponsor. Certification of the date of IRB approval must also be submitted before the fellow can participate in human subjects research.

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

Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS regulations (45 CFR Part 46)?

Check "Yes" if the activities proposed are exempt from the regulations. Insert the exemption number(s) corresponding to one or more of the six exemption categories listed in **Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Training Plan**. If the proposed research corresponds to one or more of the exempt categories, then the remaining parts of Item 9 of the Face Page are not applicable.

OHRP guidance states that Exemptions should be independently determined (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 time of application, the exemptions designated in item 9a often represent the opinion of the individual applying for the fellowship and his/her sponsor, and the justification provided for the exemption by the applicant and sponsor is evaluated during peer review.

Human Subjects Activities Not Exempt from HHS Human Subjects Regulations

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

Item 9b. Human Subjects Assurance Number

If the sponsoring institution has a current approved Federal Wide Assurance (FWA) on file with the OHRP (http://www.hhs.gov/ohrp/) that covers the specific activity, insert the number in the space provided.

Insert "None" in Item 9b if the sponsoring institution does not have an approved assurance on file with OHRP. In this case, the sponsoring institution, by the signature on the Face Page, is declaring that it will comply with 45 CFR Part 46 and proceed to obtain a human subjects assurance (see http://www.hss.gov/ohrp). *Do not insert the human subjects assurance number of any collaborating institution in the space provided*.

NIH no longer requires Institutional Review Board (IRB) approval and certification 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) and Human Subjects Research supplemental instructions. However, any modification of the Research Training Proposal 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.

When a year (12 months) will have elapsed between the initial IRB review date and the anticipated award date, re-review by the IRB is required. The date of IRB approval will be required prior to award.

Project Previously Reviewed by the IRB

In many instances, the applicant (prospective fellow) will be participating in research supported by research project grants for which the IRB review of human subjects is already complete or an exemption has been designated. This review or exemption designation is sufficient, provided that the IRB determines that participation of the applicant does not substantially modify the research. The appropriate grant(s) must be identified along with their IRB approval dates or exemption designation. To do so if Item 9 is checked "Yes," provide the information in Section E. of the Research Training Plan. If the sponsoring institution has an approved FWA or MPA on file with OHRP that covers the specific activity, provide the number and the latest date of approval by the IRB of the proposed activities. This date must be no earlier than one year before the receipt date for which the application is submitted. The information in Items 9a, 9b, Section E. of the Research Training, and the appropriate signatures, fulfill the requirement for certification of IRB approval.

If an award is made, fellows may *not* conduct research involving human subjects until a certification of the date of IRB approval or a designation of exemption has been accepted by the NIH IC or AHRQ.

To assist in filling out items 9c and 9d, see the Human Subjects Research Supplemental Instructions for definitions of clinical research and NIH-defined Phase III clinical trial.

Item 9c. Clinical Trial

Does your proposed research include a clinical trial?

Check "Yes" or "No" to indicate whether the project is a clinical trial.

Item 9d. NIH-Defined Phase III Clinical Trial

Does your proposed research meet criteria for an NIH-Defined Phase III Clinical Trial?

Check "Yes" or "No" to indicate whether the project is an NIH-Defined Phase III clinical trial.

Item 10. Vertebrate Animals

Check "No" if activities involving vertebrate animals are not planned at any time during the proposed project period. The remaining parts of item 10 are then not applicable.

Check "Yes" if activities involving vertebrate animals are planned at any time during the proposed project period, either at the sponsoring organization or at any other performance site or collaborating institution. Generation of custom antibodies constitutes an activity involving vertebrate animals.

Item 10a. IACUC Verification

NIH no longer requires Institutional Animal Care and Use Committee approval of the proposed research before NIH peer review of an application. See http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-064.html. See also the Just-In-Time Policy.

This field is not necessary for application submission. However, the data must be submitted to NIH consistent with the "just-in-time" process prior to award.

If the verification of IACUC approval is not submitted with the application, sponsoring institutions with "full" Animal Welfare Assurances on file with the Office of Laboratory Animal Welfare (OLAW) should enter

"Pending" in the box requesting IACUC approval date. Following NIH peer review, applicants and their sponsoring institutions will be notified of the need for IACUC review and verification for the proposed animal activity. The verification of IACUC approval from an official signing for the sponsoring organization must then be sent to and received by the Grants Management Office identified in the notice requesting IACUC verification. This IACUC verification must include: the PHS application number, title of the research fellowship proposal, name of applicant, sponsoring institution, Animal Welfare Assurance number, date of IACUC approval, and appropriate signatures.

Any modifications of the Research Training Plan required by the IACUC, must be submitted with the verification of IACUC approval. It is the responsibility of the applicant/fellow, his/her sponsor, and the sponsoring institution to submit the required verification of approval.

Project Previously Reviewed by the IACUC

In many instances, the fellow will be participating in research supported by research project grants for which the IACUC review has been obtained. This review is sufficient, provided that participation of the fellow does not substantially modify the research. The appropriate grant(s) must be identified along with the IACUC approval date(s). To supply this information, check "Yes" in Item 10 and enter and provide the Information in Section F of the Research Training Plan.

Indefinite Project

If the sponsoring institution has an approved Animal Welfare Assurance on file with OLAW but, at, the time of application, plans for the involvement of vertebrate animals are so indefinite that IACUC review and approval are not feasible, check "Yes" in Item 10 and insert "Indefinite" in Item 10a. If an award is made, vertebrate animals may not be involved until a verification of the date of IACUC approval has been submitted to the NIH IC or AHRQ.

Institutional Responsibilities

The Sponsoring Institution must ensure that the fellow is enrolled in the institution's animal welfare training and safety programs for personnel who have contact with animals, as appropriate. It is also the Sponsoring Institution's responsibility to ensure that the fellow is properly supervised when working with live vertebrate animals.

Item 10b, Animal Welfare Assurance

If the sponsoring institution has a full Animal Welfare Assurance on file with the Office of Laboratory Animal Welfare (OLAW), enter the Assurance number of the sponsoring institution in Item 10b. (To determine whether the sponsoring institution holds an Animal Welfare Assurance, see http://grants.nih.gov/grants/olaw/olaw.htm#assur.)

Enter "None" in Item 10b if the sponsoring institution does not have an approved Animal Welfare Assurance on file with OLAW. *Do not enter the Animal Welfare Assurance of any collaborating institution in the space provided*. By inserting "None" and, by signing the Face Page, the sponsoring institution is declaring that it will comply with PHS Policy on Humane Care and Use of Laboratory Animals by submitting an Animal Welfare Assurance and verification of IACUC approval when requested to do so by OLAW.

Item 11, Sponsor

Name the one individual who will provide the majority of the research training and be responsible for the scientific and technical direction of the project.

Contact information for your sponsor and any co-sponsors is included in Items 17 & 18 on Form Page 2.

Item 12, 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 13a&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 HHS for payment and accounting purposes. If a number has not yet been assigned by HHS, 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 14, Administrative Official to be Notified if Award is Made

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 15, Applicant Certification and Acceptance

Read the assurance and certification language carefully. Review the assurances and certifications referenced on the Checklist in Section I.C as well as the Kirschstein-NRSA Payback Assurance (Section IV of these instructions). By signing the application Face Page, the applicant certifies compliance with the assurances and certifications identified in the Applicant Section on the Checklist. Deliberate withholding, falsification, or misrepresentation of information could result in an administrative action(s), such as withdrawal of an application, suspension and/or termination of an award, or debarment of an individual, as well as possible criminal penalties. Failure to sign the certification precludes the possibility of an award.

An original signature, in ink, is required. “For” or “Per” signatures are not acceptable. Date of signature must be included.

Item 16, Sponsor’s and Authorized Administrative Official’s Certification and Acceptance

Read this section carefully

Original signatures, in ink, are required. “For” signatures are acceptable; i.e., if the official designated to sign for the applicant organization is not available to sign, only another institutional official with formal delegated authority to act in his/her behalf may sign as "acting for" such official.

However, “Per” signatures (signing as the designated official or without the formal delegation) are not acceptable. The date of signature must be included.

In signing the application, the duly authorized representative of the sponsoring institution certifies that the sponsoring institution will comply with all applicable policies, assurances and certifications referenced in the application.

The sponsoring institution 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. Deliberate withholding, falsification, or misrepresentation of information could result in administrative actions, such as withdrawal of an application, the suspension and/or termination of an award, debarment of individuals, as well as possible criminal penalties. The signer further certifies that the sponsoring institution 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 sponsoring 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

Vertebrate Animals

Debarment and Suspension

Drug-Free Workplace

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 Agents and Toxins

2. Form Page 2 (MS Word or PDF)

Items 17 and 18. Sponsor and Co-Sponsor Contact Information

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 Item 18 and provide contact information. A biographical sketch is required for the sponsor and any co-sponsor. See other required information as specified in Section I.D.

Item 17c, 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.

Item 17d, Major Subdivision (of which the component named in Item 17c is a part)

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."

Item 18. Co-Sponsor

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

Item 19, Research Proposal Description: Project Summary and Relevance

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.

3. Form Page 3 (MS Word or PDF)

Item 20, Career and Training Goals

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.

Item 21. Activities Planned Under This Award

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.

Item 22, Training Site(s)

Indicate where the training described in the Research Training Plan will be conducted. If there is more than one training site, list all the sites, including Department of Veterans Affairs (V.A.) facilities and foreign sites, and provide an explanation. One of the sites indicated must be the sponsoring organization.

If there are unusual circumstances involved in the research training proposed, such as field work or a degree sought from an institution other than the one in which the research training will take place, describe these circumstances here.

If a training site is engaged in research involving human subjects, the sponsoring organization is responsible for ensuring that the site operates under an appropriate OHRP-approved 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 398 and GPS.

For research involving vertebrate animals, the sponsoring organization must ensure that all training sites hold OLAW-approved assurances.

Item 23. Human Embryonic Stem Cells

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.

4. Table of Contents (Form Page 4) (MS Word or PDF)

Self-explanatory.

5. Applicant/Fellow Biographical Sketch (MS Word)

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.

Complete the information in the boxes at the top of the form. If you are registered in the eRA Commons, include the assigned Commons User Name. This data item is the same as what you provided on the Face Page (Item 4b) and is currently optional. (For information on the eRA Commons, see https://commons.era.nih.gov/commons/ index.jsp.)

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 MS Word.

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

DECISION TABLE FOR HUMAN SUBJECTS RESEARCH, PROTECTION AND THE INCLUSION OF WOMEN, MINORITIES, AND CHILDREN

	Criteria and Answers to Questions 1 thru 5				
Scenarios with linked instructions	1. Human Subjects Research	2. Exempt from HHS Human Subjects Regulations	3. Clinical Research	4. Clinical Trial	5. NIH-Defined Phase III Clinical Trial
A No Human Subjects	No	N/A	N/A	N/A	N/A
Requirements for Scenario A: If Human Subjects is "Yes," see Scenarios B-F below.					
B Human Subjects/E-4	Yes	Yes Exemption: 4	No	N/A	N/A
Requirements for Scenario B: - Indicate Exemption 4 (E-4) and include justification that E-4 is appropriate.					
C Human Subjects/ Other Exemptions	Yes	Yes Exemptions: 1, 2, 3, 5, 6	Yes	N/A	N/A
Requirements for Scenario C: - Indicate Exemption number(s) and include justification that the designated exemption(s) is appropriate. - Address “Inclusion of Women and Minorities” - Address “Inclusion of Children”					
D Clinical Research	Yes	No	Yes	No	N/A
Requirements for Scenario D: - Address Protection of Human Subjects - Address “Inclusion of Women and Minorities” - Address “Inclusion of Children” “Targeted/Planned Enrollment Table(s)” for each new study/ protocol (New applications; Competing Continuation applications; Competing Supplements) - “Inclusion Enrollment Report Table(s)” (Competing Continuations; Competing Supplements)					
E Clinical Trials	Yes	No	Yes	Yes	No
Requirements for Scenario E: - All requirements in Scenario D - Data and Safety Monitoring Plan - Note: Some trials may require a Data and Safety Monitoring Board, based on risk					
F NIH-Defined Phase III Clinical Trial	Yes	No	Yes	Yes	Yes
Requirements for Scenario F: - All requirements in Scenario E Increased requirements for Inclusion of Women and Minorities in Clinical Research					

literature references pertinent to the proposed research.

H. Resource Sharing

Sharing Model Organisms: If the development of model organisms is anticipated, include a description of a specific plan for sharing and distributing unique model organism research resources or state appropriate reasons why such sharing is restricted or not possible. For many individual fellowships it is anticipated that plans of this nature would have already been reported to the NIH by your sponsor in his/her research application. When this has occurred, indicate so in this section and include the appropriate grant number. For additional information on this policy, see Sharing Model Organisms Policy. If model organisms are not part of the planned research training plan, omit this section.

This description is not included in the Research Training Plan page limits.

I. 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.

J. Selection of Sponsor and Institution

1. Explain why the *sponsor, co-sponsor (if any), and institution* were selected to accomplish the research training goals.
2. *Doctorate or Current Institution*. Since 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.

K. Responsible Conduct of Research

All applications must include a plan for Responsible Conduct of Research. Applications must include the applicant's plans for obtaining instruction in the responsible conduct of research, and must include the rationale, subject matter, appropriateness, format, frequency and duration of instruction. The amount and nature of faculty participation must be described.

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.

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

8. Appendix

Include *five collated sets* of all Appendix material, in the same package with the application, following all copies of the application. Identify each item with the name of the applicant/fellow. Appendix material can be two-sided as appropriate. While the font requirements imposed in the rest of the application do not apply to the Appendix, all materials must be clearly legible. *Do not intermingle Appendix materials with the application*.

New, revised, and competing continuation applications may include the following materials in the Appendix:

- Three most significant publications (two publications for predoctoral applicants). For competing continuation applications, submit all publications resulting from the current Kirschstein-NRSA period of support.
    - **Publications in press:** Include only a publication list with a link to the publicly available on-line journal article or the NIH PubMed Central (PMC) submission identification number. Do not include the entire article.
    - **Manuscripts accepted for publication but not yet published:** The entire article should be submitted and may be stapled.
    - **Manuscripts published but an online journal link is not available:** The entire article should be submitted and may be stapled.
    - **Manuscripts in preparation:** The entire article should be submitted and may be stapled.
- Surveys, questionnaires, data collection instruments, clinical protocols, and informed consent documents. These may be stapled as sets.
- Original glossy photographs or 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 photographs or color images may be included in the Appendix that are not also represented within the Research Training Plan.*

Do not use the Appendix to circumvent the page limitations of the research training plan. Graphs, diagrams, tables, and charts that do not need to be in a glossy format to show detail must not be included in the Appendix. An application that does not observe these limitations will be returned.

The Appendix will not be duplicated with the application and will be sent only to certain members of the SRG who will serve as the primary reviewers of the application.

9. Checklist (Checklist Form Page) (MS Word or PDF)

This form page is completed by both the applicant and the sponsoring institution administrative official. The Checklist is the last page of the application.

Section I: To be completed by the applicant.

A and B. To be completed by all applicants.

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

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

Section II: Applies to the sponsoring institution.

Assurances and Certifications

Assurances of the Individual Applying for the Fellowship. The following assurances and certifications must be verified by the signature of the applicant on the Face Page of the application (see Part III, Policies, Assurances, Definitions, and Other Information).

Debarment and Suspension
Delinquent Federal Debt
Drug-Free Workplace

Assurances of the Sponsoring Institution. NIH and AHRQ require that, for each application, the assurances and certifications listed on the Checklist be verified by the signature of the official signing for the sponsoring institution on the Face Page. If unable to certify compliance, where applicable, provide an explanation.

10. Personal Data (MS Word or PDF)

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 applicant/fellow.

D. Application Section II—Sponsor and Co-Sponsor Information

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 (MS Word)

Sponsor's and Co-Sponsor's Biographical Sketch Sample (MS Word)

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 Pages

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.

E. Application Section III—References

(MS Word or PDF)

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 revised 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 26b 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.

II. SUBMISSION AND REVIEW OF YOUR APPLICATION

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.

Cover letter. You are encouraged to include a cover letter with the application. The letter may contain any of the following information:

- Application title. (Use same information provided in Face Page Item 1.)
- Funding Opportunity (PA or RFA title), when applicable. (Use the same information provided in Face Page Item 3.)
- A request for an assignment and referral to a particular awarding component(s) or Scientific Review Group (SRG). This is not a requirement; however if you have a preference, include that information. (The PHS makes the final determination.)
- List of people (e.g., competitors) who should not review your application and why

Submit a complete application. Incomplete applications will be grounds for the NIH or AHRQ 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.

Unless specifically required by these instructions (e.g., verification of vertebrate animal (IACUC) approval), do *not* send supplementary or corrective material after the receipt date unless the Scientific Review Administrator of the SRG solicits or agrees to accept this information. The application must be complete and accurate at the time of submission as there is no guarantee that the peer reviewers will consider late material.

Similar, Essentially Identical, or Identical Applications

Submissions of identical applications to one or more components of the PHS are not allowed.

The NIH will not accept similar grant applications with essentially the same research training focus from the same applicant. 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.

A. Number of Copies

Original Plus 2 Copies

Submit the *original application and two exact, legible*, single-sided photocopies of each application. The *original* must be signed by applicant, sponsor, and an authorized organizational official on the Face page.

B. Binding and Packaging

Submit the following materials in *one* package:

- cover letter;
- original application;
- two copies of the application;
- at least 3 sealed letters of reference;
- five sets of Appendix materials.

Do NOT include more than one application set (original plus 2 copies) in each mailing envelope.

The original application. The original application must be single-sided, with all required signatures 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 exact, single-sided copies of the original application. Make the copies *after* all individuals have signed the Face Page so that their signatures are present on the copies. Do not staple or

commercial carrier or the U.S. Postal Service. Private metered postmarks are not acceptable.

RFAs and PAs. Applications in response to announcements with special receipt dates, **not listed in the table above, 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-06-086, dated August 11, 2006 (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-086.html).

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 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 Administrator of the 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 four 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) 451-0088. If there is a change in assignment, you will receive another notification.

Applicant investigators must not communicate directly with any 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 Administrator. This individual is in charge of the review group and is identified in the eRA Commons.

F. 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://www.csr.nih.gov/Welcome/Grant_Application.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, 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.

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

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. The Summary Statement represents a combination of the reviewers' written comments and includes the SRA's summary of the members' discussion during the study section meeting, the recommendations of the study section, and administrative notes of special considerations.

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) Human Subjects Involvement and Characteristics, 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 Approach criterion.

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 Approach 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 plan in Responsible Conduct of Research.

III. KIRSCHSTEIN-NRSA FIELDS OF TRAINING

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

1100 BIOCHEMISTRY
1110 Biological Chemistry
1120 Bioenenergetics
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

6000 II. PREDOMINANTLY CLINICAL RESEARCH TRAINING (any category 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 CLINICAL DENTISTRY

6500 MEDICAL 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

IV. 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 Human Subjects Section of the Research Training Plan

PREPARING THE HUMAN SUBJECTS RESEARCH SECTION OF THE RESEARCH TRAINING PLAN

In the Human Subjects Research 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 HHS regulations to protect human subjects from research risks (45 CFR Part 46), (2) the requirements of NIH policies for data and safety monitoring of clinical trials, and (3) the requirements of NIH policies on inclusion of women, minorities, and children. See Instructions Pertaining to Non-Exempt Human Subjects Research.

If the research is exempt from the requirements in the Federal regulations, you must provide a justification for the exemption with 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. See Exempt Human Subjects Research.

Applications must comply with this requirement; if not, application processing may be delayed or the application may be returned to the applicant without review.

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.

To assist you in completing Item E. of the Research Training Plan (Human Subjects Research), we have provided six possible scenarios. All research will fall into one of these six scenarios. Determining which scenario best matches your proposed research depends on your answers to the following five questions:

Question 1: Does your proposed research involve human subjects?

Question 2: Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS regulations (45 CFR Part 46)?

Question 3: Does your proposed research meet the definition of clinical research?

Question 4: Does your proposed research include a Clinical Trial?

Question 5: Does your proposed research meet criteria for an NIH-Defined Phase III Clinical Trial?

Click on the questions and when you can answer the five questions, select the scenario that best matches your responses, and then follow the instructions provided for the scenario you choose.

HUMAN SUBJECTS RESEARCH

Question 1: Does your proposed research involve human subjects?

The first thing you must determine is whether or not your research involves human subjects, either at the applicant organization or at any other performance site or collaborating institution (e.g., subcontractors, consultants).

The research described in your application 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.

If research activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution, then your answer is "Yes" even if the research is exempt from regulations for the protection of human subjects.

The HHS 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*

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. [OHRP's Coded Specimen Guidance]

Research: HHS 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.

Research Using Human Specimens or Data:

Regulatory requirements (Federal and state) to protect human subjects apply to a much broader range of research than many investigators realize, and researchers using *human specimens and/or data* are often unsure about how regulations apply to their research. Regulatory obligations to protect human subjects would apply, for example, to research that uses –

- 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.

The definition of "human subject" includes, but is not limited to, human organs, tissues, and body fluids from living individuals, well as private graphic, written, or recorded information about living individuals, if (1) there is interaction or intervention with a living individual to obtain the specimens or data for research purposes, or (2) the identity of the subjects can be readily ascertained by the investigator or other members of the research team.

Research that involves only coded private information/data or coded human biological specimens may not constitute human subjects research under the HHS 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 an agreement signed between the recipient researcher and the repository providing the specimens and/or data). [See definitions below 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.

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.

You may find it helpful to consult the following guidance from OHRP:

- OHRP Decision Charts: http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm
- OHRP Policy on Coded Specimens and Data: http://www.hhs.gov/ohrp/humansubjects/guidance/cdebiol.pdf
- OHRP Guidance on Repositories: http://www.hhs.gov/ohrp/humansubjects/guidance/reposit.htm; http://www.hhs.gov/ohrp/humansubjects/guidance/guid1223.pdf

With regard to the engagement of performance sites in proposed human subjects research, you may find it helpful to consult the following:

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

The decisions about when research involving human specimens and/or data from subjects is considered human subjects research are complex. The OHRP recommends that institutions have policies in place that designate the individual or entity authorized to determine whether proposed research is exempt from regulatory requirements to protect human subjects and that determinations should be made by someone other than the investigator.

You need to be aware that the involvement of human subjects in non-exempt research must be approved by your IRB prior to award.

The NIH Office of Extramural Research Human Subjects website contains additional information and Frequently Asked Questions that may help investigators understand how these regulations and Guidance documents apply to their research. See http://grants.nih.gov/grants/policy/hs/index.htm.

How can you determine whether research that involves only the use of specimens and/or data from pathology archives or a specimen bank and/or data repository is human subjects research?

The research described in your application may include more than one research project; thus the application may include separate projects that meet the requirements for either human subjects research, exempt human subjects research, or are not defined as human subjects research. Examples are provided below:

- If the specimens and/or data were obtained specifically for the currently proposed research project through intervention or interaction with a living individual, then your research is human subjects research.
- If you receive or have access to individually identifiable specimens or data from living individuals (e.g., pathology or medical records), your proposed research is human subjects research.
- If you receive or have access to existing individually identifiable private information or identifiable specimens from living individuals (e.g., pathology or medical records), but you as the investigator or your collaborator record the information in such a manner that you cannot subsequently access or obtain direct or indirect identifiers that are linked to the subjects the research project that you conduct using data recorded in this manner meets the requirements of Exemption 4. If you will retain or can access any identifiers, the research project is not exempt under Exemption 4.
- If you are using specimens and/or data and neither you nor your collaborators can identify the subjects from whom the specimens and/or data were obtained either directly or indirectly through coding systems, the HHS human subjects regulations (45 CFR Part 46) do not apply at all.
- If your research involves only coded private information/data or coded specimens, OHRP does not consider this research to involve human subjects as defined under the HHS Protection of Human Subjects Regulations (45 CFR Part 46.102(f)) if the following conditions are both met:
    - the private information/data or specimens were not collected specifically for the currently proposed research project through an interaction or intervention with living individuals; and
    - the investigator(s) cannot readily ascertain the identity of the individual(s) to whom the coded private information or specimens pertain because, for example:

(a) the key to decipher the code is destroyed before the research begins;
(b) the investigators and the holder of the key enter into an agreement prohibiting the release of the key to the investigators under any circumstances, until the individuals are deceased;
(c) there are IRB-approved written policies and operating procedures for a repository or data management center that prohibit the release of the key to the investigators under any circumstances, until the individuals are deceased; or
(d) there are other legal requirements prohibiting the release of the key to the investigators, until the individuals are deceased.

What is not human subjects research under HHS regulations at 45 CFR Part 46?

- Research that does not involve intervention or interaction with living individuals, or identifiable private information is not human subjects research (see definitions),

- 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 and local laws.

Guidance and Additional Instructions

If you answered "No" to Question 1, then proceed to Scenario A.

If you answered "Yes" to Question 1, then you may need to determine whether your research meets the criteria for an exemption from the Human Subjects Protection requirements. Proceed to Question 2.

If you need to consider an alternative scenario, return to the Decision Table for Section E.

EXEMPT HUMAN SUBJECTS RESEARCH

Question 2: Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS regulations (45 CFR Part 46)?

Some human subjects research is exempt from the HHS regulations (45 CFR Part 46). OHRP guidance states that Exemptions should be independently determined (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 time of application, the exemptions designated in item 4a often represent the opinion of the PI, and the justification provided for the exemption by the PI is evaluated during peer review.

The research described in your application 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.

If research activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution, then your answer is "Yes" to Question 1 "Does your proposed research involve human subjects" even if the research is exempt from regulations for the protection of human subjects.

Research involving individuals who are or who become prisoners cannot be exempt under any exemption categories (see 45 CFR Part 46 Subpart C).

Your human subjects research is exempt if all of the proposed research meets the criteria for one or more of the following six exemptions.

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) from the Office of Human Research Protection (OHRP) will help you to see whether your research falls under the human subjects regulations and if so, whether it meets the criteria for Exemption 4. See also the information contained at: Exemption 4 Guidance and Information.

The NIH Office of Extramural Research website also contains information that is helpful for determining whether your 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 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.

Guidance and Additional Instructions

If you answered "Yes" to Question 2, then your research meets the criteria for an exemption.

- If your research meets the criteria for Exemption 4, then follow the instructions for Scenario B and read the information contained in Exemption 4 Guidance and Information.
- If your research meets the criteria for any of the other five exemptions, follow the instructions for Scenario C.

Remember that you need to identify which exemption(s) you believe is applicable to your research, and provide a justification for the exemption(s) with sufficient information about the involvement of human subjects to allow a determination by peer reviewers and NIH staff that the claimed exemption(s) is appropriate.

If you answered "No" to Question 2, then your research does not qualify for one of the exemptions, and your research is not exempt from full IRB review. Proceed to Question 3.

If you need to consider an alternative scenario, return to the Decision Table for Section E.

CLINICAL RESEARCH

Question 3: Does your proposed research meet the definition of clinical research?

The NIH defines Clinical Research as:

(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.

Clinical research that does not meet the criteria for a clinical trial or an NIH-defined Phase III clinical trial must follow the instructions in Scenario D.

Research projects that meet the criteria for Exemption 4 are not considered "clinical research." Investigators who propose research that meets the criteria for Exemption 4 must follow the instructions provided in Scenario B.

Guidance and Additional Instructions

If you answered "Yes" to Question 3, then proceed to Question 4 and Question 5 to determine whether your research meets the criteria for a clinical trial or an NIH-defined Phase III clinical trial.

If you answered "No," then you need to consider an alternative Scenario. Return to the Decision Table for Section E.

CLINICAL TRIAL

Question 4: Does your proposed research include a 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 these criteria 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.

Guidance and Additional Instructions

If you answered “Yes” to Question 4, then you will need to provide a general description of a Data and Safety Monitoring Plan. See Scenario E.

Also continue to Question 5 to determine whether your research meets the criteria for an NIH-defined Phase III clinical trial.

If you answered “Yes” to Question 3 (Clinical Research) and “No” to Question 4 (Clinical Trial), then follow the instructions for Scenario D.

If you answered “No” to Question 4, you will need to consider an alternative scenario. Return to the Decision Table for Section E.

NIH-DEFINED PHASE III CLINICAL TRIAL

Question 5: Does your proposed research meet criteria for an 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 either evaluating an experimental intervention in comparison with a standard or control intervention or of 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.

If your research meets the above criteria, then in addition to providing a Data and Safety Monitoring Plan, you will be expected to address whether you expect to find clinically important sex/gender and/or race/ethnicity differences in the intervention effect. The discussion may include supporting evidence and/or data derived from prior animal studies, clinical observations, metabolic studies, genetic studies, pharmacology studies, and observational, natural history, epidemiology, and other relevant studies.

You will be expected to provide a research training plan that must include one of the following 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.

Guidance and Additional Instructions

If you answered “Yes” to Question 5, then follow the instructions for Scenario F.

If you answered “No,” then you need to consider an alternative Scenario. Return to the Decision Table for Section E.

EXEMPTION 4 GUIDANCE AND INFORMATION

Research that meets the criteria for Exemption 4 is Human Subjects Research, but it is not considered clinical research.

Exemption 4 includes research projects 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.

What is meant by "existing" data or specimens?

Exemption 4 applies to retrospective studies of specimens and/or data that have already been collected. The materials must be "on the shelf" (or in the freezer) at the time the protocol is submitted to the IRB or other designated officials at your institution to determine whether the research is indeed exempt. Research that involves the ongoing collection of specimens and/or data does not meet the criteria for Exemption 4.

What is meant by "publicly available sources"?

This language in the regulation was intended to apply to public sources of data, such as census data. Its meaning with respect to human tissue specimens is widely debated. Although there are organizations that make human cells and tissues broadly accessible to the research community, these materials are not usually available to the public at large and are not generally considered to be publicly available.

What is meant by "identifiers linked to the subjects"?

Identifiers, such as names, social security numbers, medical record numbers, or pathology accession numbers, or other codes that permit specimens to be linked to living individuals and perhaps also to associated medical information.

How can I determine whether my research meets the criteria for Exemption 4?

The humans subjects regulations decision charts (http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm) from the Office of Human Research Protection (OHRP) will help you to see whether your research falls under the human subjects regulations and if so, whether a research project meets the criteria for Exemption 4.

OHRP advises that investigators should not have the authority to make an independent determination that research involving human subjects is exempt. OHRP guidance states that Exemptions should be independently determined (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 time of application, the exemptions designated in item 4a often represent the opinion of the Principal Investigator, and the justification(s) provided by the Principal Investigator for the exemption(s) is/are evaluated during peer review.

Information is also available on the NIH Office of Extramural Research website at http://grants.nih.gov/grants/policy/hs/index.htm.

How can you determine whether research that involves only the use of specimens and/or data from pathology archives or a specimen bank and/or data repository is human subjects research?

The research described in your application may include more than one research project; thus the application may include separate projects that meet the requirements for either human subjects research, exempt human subjects research, or are not defined as human subjects research. Examples are provided below:

- If the specimens and/or data were obtained specifically for the currently proposed research project through intervention or interaction with a living individual, then your research is human subjects research.
- If you receive or have access to individually identifiable specimens or data from living individuals (e.g., pathology or medical records), your proposed research is human subjects research.
- If you receive or have access to existing individually identifiable private information or identifiable specimens from living individuals (e.g., pathology or medical records), but you as the investigator or your collaborator record the information in such a manner that you cannot subsequently access or obtain direct or indirect identifiers that are linked to the subjects the research project that you conduct using data recorded in this manner meets the requirements of Exemption 4. If you will retain or can access any identifiers, the research project is not exempt under Exemption 4.
- If you are using specimens and/or data and neither you nor your collaborators can identify the subjects from whom the specimens and/or data were obtained either directly or indirectly through coding systems, the HHS human subjects regulations (45 CFR Part 46) do not apply at all.
- If your research involves only coded private information/data or coded specimens, OHRP does not consider this research to involve human subjects as defined under the HHS Protection of Human Subjects Regulations (45 CFR Part 46.102(f)) if the following conditions are both met:
    - the private information/data or specimens were not collected specifically for the currently proposed research project through an interaction or intervention with living individuals; and
    - the investigator(s) cannot readily ascertain the identity of the individual(s) to whom the coded private information or specimens pertain because, for example:
        (a) the key to decipher the code is destroyed before the research begins;
        (b) the investigators and the holder of the key enter into an agreement prohibiting the release of the key to the investigators under any circumstances, until the individuals are deceased;
        (c) there are IRB-approved written policies and operating procedures for a repository or data management center that prohibit the release of the key to the investigators under any circumstances, until the individuals are deceased; or
        (d) there are other legal requirements prohibiting the release of the key to the investigators, until the individuals are deceased.

Guidance and Additional Instructions

If your research meets the criteria for Exemption 4, refer to Scenario B.

If you need to consider an alternative scenario, return to the Decision Table for Section E.

INSTRUCTIONS PERTAINING TO NON-EXEMPT HUMAN SUBJECTS RESEARCH

In your application narrative, create a section entitled “E. Human Subjects Research” immediately following the last entry in the Research Design and Methods section. 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.

As the first entry, create a heading entitled “Protection of Human Subjects.” Use subheadings to address the issues listed under items 1-4 below.

If your research includes a clinical trial, address item 5, "Data and Safety Monitoring Plan."

Protection of Human Subjects

1. RISKS TO THE 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 in performing the proposed research.

b. ***Sources of Materials***

- Describe the research material obtained from living human subjects in the form of specimens, records, or data.
- Describe any data that will be recorded on the human subjects involved in the project.
- Describe the linkages to subjects, and indicate who will have access to subject identities.
- Provide information about how the specimens, records, or data are collected and whether material or data will be collected specifically for your proposed research project.

c. ***Potential Risks***

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

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. Informed consent document(s) need not be submitted to the PHS agencies unless requested.

b. ***Protection Against Risk***

- Describe planned procedures for protecting against or minimizing potential risks, including risks to confidentiality, and assess their likely effectiveness.

- 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 description of the plan for data and safety monitoring of the research and adverse event reporting to ensure the safety of subjects.

3. POTENTIAL BENEFITS OF THE PROPOSED RESEARCH TO THE SUBJECTS AND OTHERS

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

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

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 biologicals) 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 Food and Drug Administration, and/or the status of requests for an IND or IDE covering the proposed use of the test article in the research training plan.

5. DATA AND SAFETY MONITORING PLAN

- If your 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. Principal Investigator (required)

    b. Independent individual/Safety Officer

    c. Designated medical monitor

    d. Internal Committee or Board with explicit guidelines

    e. 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 trails. 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.

    f. Institutional Review Board (IRB - required)

- 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.

Guidance and Additional Instructions

Proceed to Inclusion of Women and Minorities.

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.

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.) If you are using existing specimens and/or data that does not meet the criteria for Exemption 4 and you do not have 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, you may 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 (MS Word or PDF) 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;
      - 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;
- 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;
   - 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.

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

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

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

A. New Applications and Clinical Research Studies begun after January 10, 2002:

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 new Inclusion Enrollment Report Table (MS Word or PDF) for reporting summary data on participants to NIH includes two categories of ethnicity and five categories of race and is based on recent changes by the Office of Management and Budget (OMB) regarding standards for data on race and ethnicity. Investigators should review the instructions and Frequently Asked Questions about using the new 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 respondents in each ethnic category; (b) the number of respondents who selected only one category for each of the five racial categories; (c) the total number of respondents who selected multiple racial categories reported as the "number selecting more than one race," and (d) the number of respondents 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 items should be designed in a way that they can be aggregated into the required categories for reporting purposes.

For new applications and clinical research studies begun after January 10, 2002, use the Targeted/Planned Enrollment Table format (MS Word or PDF).

Provide the study title.

The "Total Planned Enrollment" means the number of subjects that are expected to be enrolled during the entire period of the study and are needed to evaluate the research question 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 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.

How should I report race and ethnicity data when my research involves a foreign population?

Investigators are encouraged to design their data collection instruments in ways that allow respondent self-identification of their racial and ethnic affiliation. However, these items should be designed in a way that they can be aggregated into the 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, investigators should asterisk and footnote the table indicating that data includes foreign participants. If the aggregated data only includes foreign participants, the investigator should provide information in one table with an asterisk and footnote. However, if the study includes both domestic and foreign participants, the investigator should complete two separate tables – one for domestic data and one for foreign data, with an asterisk and footnote accompanying the table with foreign data.

B. Clinical Research Studies begun before January 10, 2002:

If the proposed research uses existing data, then use the formats below for competing continuations and competing supplements. Investigators should review the instructions and Frequently Asked Questions about using the new Enrollment Table format at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-053.html.

Competing Continuations:

For competing continuations involving the collection of new/additional clinical data, use the "Targeted/Planned Enrollment Table (MS Word or PDF)" and the instructions above. *Note:* If you choose to report information with the new Targeted/Planned Enrollment Table, you must continue to use this format for the remaining years of the project.

For competing continuations involving studies begun before January 10, 2002 that do not involve the collection of new/additional clinical data, the data on ethnicity/race and sex/gender may be presented in EITHER the Targeted/Planned Enrollment Table (MS Word or PDF) OR the 4/98 Version of the Inclusion Table (MS Word or PDF). If data were originally collected from study subjects using two questions (one about ethnicity and one about race) and subjects were given the option of selecting more than one race, then use the Targeted/Planned Enrollment Table. Otherwise, use the 4/98 Version of the Inclusion Table, which uses a combined race/ethnicity format with five categories.

Competing Supplements:

For competing supplemental applications involving studies begun before January 10, 2002, investigators may report ethnicity/race and sex/gender composition using EITHER the Inclusion Enrollment Report (MS Word or PDF) OR the 4/98 Version of the Inclusion Table (MS Word or PDF). If data are being collected using two questions (one about ethnicity and one about race) and subjects were given the option of selecting more than one race, then use the Targeted/Planned Enrollment Table. *Note:* If you choose to report information with the new Targeted/Planned Enrollment Table, you must continue to use this format for the remaining years of the project.

If data are being collected using one question that combines ethnicity and race, use the 4/98 Version of the Inclusion Table. For previously funded studies that used the 4/98 Version of the Inclusion Table the earlier reporting format is NOT directly transferable to the format.

C. What Inclusion/Enrollment Table Should Principal Investigators Use for Reporting Accrual Data to NIH? (New versus Old Table)

The following instructions apply to progress reports, whether submitted as part of a non-competing or competing application.

Guidelines for choosing the new Inclusion Enrollment Report Table versus the old Inclusion Table are as follows:

New Inclusion Enrollment Report (MS Word or PDF)

- Studies begun after January 10, 2002, must be designed to ask participants two questions, one about their ethnicity and one about their race, and investigators must use the new Inclusion Enrollment Report table format for reporting summary data to NIH.

- Principal investigators who started a study prior to January 10, 2002 using the old Inclusion Table format for reporting summary data to NIH may switch to the new Inclusion Enrollment Report format if they choose to do so, but they must also change their data collection methods to ask two questions (one about ethnicity and another about race) rather than one question (that combined race and ethnicity) for all participants enrolled in the study from that point on.

- For studies that began prior to January 10, 2002: When the study is submitted for competing continuation (Type 2) and plans to collect new/additional data, the principal investigator is required to change to the new standards for collecting data and use the new Inclusion Enrollment Report format for reporting data to NIH. In some cases, this will mean that principal investigators will need to re-ask study participants

about their race and ethnicity using the new two-question format. Note: principal investigators should not ask again about race and ethnicity if the subjects are no longer participating in the study.

Old Inclusion Table (4/98 Version) MS Word or PDF

- Studies begun prior to January 10, 2002 (and now in their non-competing Type 5 period) that were structured with one question about race and ethnicity may continue to report enrollment/accrual data to NIH based on the old form, i.e., using five categories of race/ethnicity. However, when they come in for competitive renewal (Type 2), they will need to change to the new standards/new form for any additional data collection.
- Principal investigators should not switch to the new form if only one question about race and ethnicity is used in data collection.
- Sample of old Inclusion Table format: http://grants.nih.gov/grants/funding/women_min/InclusionOld_Form.pdf

Investigators who have questions about these choices should contact NIH program staff for advice.

Guidance and Additional Instructions

After you have completed the Inclusion of Women and Minorities section, proceed to Inclusion of Children.

INCLUSION OF CHILDREN

- Create a section entitled “Inclusion of Children” and place it immediately following the last entry in the Inclusion of Women and Minorities section.
- 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, then you must present an acceptable justification (see below) for the exclusion.
- 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 in the “Human Subjects Research and Protection from Risks” subheading.

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.

Guidance and Additional Instructions

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

See Policy on Inclusion of Children.

Scenario A: No Human Subjects Research Proposed

Criterion

If you are uncertain as to whether your research involves Human Subjects please read: Question 1: Does your proposed research involve human subjects?

Instructions

Check the box marked “No” on the Face Page (item 4).

In your application narrative, create a heading labeled “E. Human Subjects Research” and place it immediately after the last entry in the Research Design and Methods section. Include the following statement below the heading: “No Human Subjects Research is proposed in this application.”

If your proposed research involves human specimens and/or data from subjects, please provide a justification for your claim that no human subjects are involved. (See guidance under Question 1. Does your proposed research involve human subjects?)

Guidance and Additional Instructions

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research.

Do not follow the instructions for Scenario A if research activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution. You will need to consider an alternative scenario.

If you need to consider an alternative scenario return to the Decision Table for Section E.

or

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

Scenario B: Human Subjects Research Claiming Exemption 4

Criteria

Human Subjects Research	Yes
Exemption	4
Clinical Research	No
Clinical Trial	N/A
NIH-Defined Phase III Clinical Trial	N/A

Instructions and Required Information

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

Check the box marked "Yes" on the Face Page (item 4). 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 performance site or collaborating institution. "Yes" should be checked even if the research is exempt from requirements in the Federal regulations for the protection of human subjects (45 CFR Part 46).

Indicate that you are claiming Exemption 4 on the Face Page (item 4a) and enter "NA" for item 4b, since no assurance is needed.

In your application narrative, create a heading entitled "E. Human Subjects Research" and place it immediately after the last entry in the Research Design and Methods section. Include the following statement below the heading: "This Human Subjects Research falls under Exemption 4."

Address the following three items in this new section:

1. Human Subjects Involvement and Characteristics:

a. Describe the proposed involvement of human subjects in the work outlined in the Research Design and Methods section.

b. Describe the characteristics of the subject population, including their anticipated number, age range, and health status. If the characteristics of the population are not available, then the applicant should indicate that the information is unknown.

c. Identify the criteria for inclusion or exclusion of any subpopulation.

d. Explain the rationale for the involvement of vulnerable populations, such as fetuses, neonates, pregnant women, children, institutionalized individuals, or others who may be considered vulnerable populations. Exemptions 1-6 do not apply to research involving prisoners or subjects who become prisoners (see 45 CFR Part 46 Subpart C). Although Exemptions 1 and 3-6 apply to research involving children (see 45 CFR Part 46 Subpart D), Exemption 2 can only be used for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

e. List any collaborating sites where human subjects research will be performed and describe the role of those sites in performing the proposed research.

2. Sources of Materials:

a. Describe the research material obtained from living human subjects in the form of specimens, records, or data.

b. Describe any data that will be recorded on the human subjects involved in the project.

c. Describe the linkages to subjects, and indicate who will have access to subject identities.

d. Provide information about when the specimens, records, or data were collected and whether new material or data will need to be collected specifically for your proposed research project.

3. Justification for Exemption:

a. Indicate that you are claiming Exemption 4.

b. Provide a justification for why your research meets the criteria for Exemption 4.

Guidance and Additional Instructions

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research.

What types of research meet the criteria for Exemption 4? Research projects 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. Determining the appropriateness of Exemption 4 for research using specimens and data can be complex.

Note: Prospective collection of additional specimens does not meet the criteria for Exemption 4.

If you are uncertain as to whether your research meets the criteria for Exemption 4, refer to Exemption 4 Guidance and Information.

If you need to consider an alternative scenario, return to the Decision Table for Section E.

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

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

Criteria

Human Subjects Research	Yes
Exemption Claimed	1, 2, 3, 5, 6
Clinical Research	Yes
Clinical Trial	N/A
NIH-Defined Phase III Clinical Trial	N/A

Instructions and Required Information

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

Check the box marked “Yes” for item 4 on the Face Page, check the box marked “Yes” for item 4a on the Face Page, enter the exemption number that you are claiming. Enter “NA” for item 4b, since no OHRP assurance number is needed for exempt research.

Although your research may be exempt from the IRB oversight provisions, it is still human subjects research, and you need to follow the instructions that are identified for each of the following topics and provide the information that is requested.

In your application narrative, create a heading entitled “E. Human Subjects Research” and place it immediately after the last entry in the Research Design and Methods section. Address the following items in this new section. Include the following statement below the heading: “This Human Subjects Research falls under Exemption(s) … .”

1. Human Subjects Involvement and Characteristics:

a. Describe the proposed involvement of human subjects in the work outlined in the Research Design and Methods section.

b. Describe the characteristics of the subject population, including their anticipated number, age range, and health status.

c. Identify the criteria for inclusion or exclusion of any subpopulation (e.g., men, women, children).

d. Explain the rationale for the involvement of vulnerable populations, such as fetuses, neonates, pregnant women, children, institutionalized individuals. Please note that research involving prisoners is not exempt under any category (see 45 CFR Part 46 Subpart C).

e. List any collaborating sites where human subjects research will be performed and describe the role of those sites in performing the proposed research.

2. Sources of Materials:

a. Describe the sources of the research material obtained from living human subjects in the form of specimens, records, or data.

b. Describe any data that will be recorded on the human subjects involved in the project.

c. Describe the linkages to subjects and indicate who will have access to subject identities.

d. Provide information about when the specimens, records, or data were collected and whether new material or data will need to be collected specifically for your proposed research project.

3. Justification for Exemption(s):

In this section, identify which exemption(s) (1, 2, 3, 5, or 6) you are claiming. (If you are claiming Exemption 4 please refer to Scenario B and the appropriate instructions.) Justify why your research is appropriate for the exemption(s) that you have claimed.

4. Inclusion of Women and Minorities (click and follow instructions)

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.

Create a section entitled "Inclusion of Women and Minorities" and place it immediately following the last entry in the "Human Subjects Research" section.

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.

Include the Targeted/Planned Enrollment Table (MS Word or PDF) here.

5. Inclusion of Children (click and follow instructions)

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.)

Guidance and Additional Instructions

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research.

If you are uncertain as to whether your research meets the criteria for an exemption please read: Question 2: Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS regulations?

If you need to consider an alternative Scenario, return to the Decision Table for Section E.

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

Scenario D: Clinical Research

Criteria

Human Subjects Research	Yes
Exemption	No
Clinical Research	Yes
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.

Check the box marked "Yes" for item 4 on the Face Page, for item 4a check the box marked "No," and for item 4b enter your OHRP assurance number in the space provided on the Face Page.

In your application narrative, create a section entitled "E. Human Subjects Research" immediately following the last entry in the Research Design and Methods section. Include the following statement below the heading: "This Human Subjects Research meets the definition of 'Clinical Research.'"

Create a subheading for each of the following items, follow the instructions that are identified for each topic, and provide the information that is requested:

- Protection of Human Subjects (click and follow instructions)
- Inclusion of Women and Minorities (click and follow instructions)
  Targeted/Planned Enrollment Table (MS Word or PDF)
- Inclusion of Children (click and follow instructions)

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

Guidance and Additional Instructions

Research that meets the criteria for Exemption 4 is not considered clinical research.

Research that uses *existing (archived)* specimens or data that *can* be linked to living individuals must address the inclusion of women, minorities and children as identified above, unless the investigator does not have access to the information.

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research.

If you are uncertain as to whether your research meets the criteria for clinical research, read: Question 3: Does your proposed research meet the definition of Clinical Research?

If you need to consider an alternative scenario, return to the Decision Table for Section E.

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

Scenario E: Clinical Trials

Criteria

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

Instructions and Required Information

Check the box marked "Yes" for item 4 on the Face Page, for item 4a check the box marked "No," and for item 4b enter your OHRP assurance number in the space provided.

In your application narrative, create a section entitled "E. Human Subjects Research" immediately following the last entry in the Research Design and Methods section. Include the following statement below the heading: "This Human Subjects Research meets the definition of a clinical trial." Create a subheading for each of the following items, follow the instructions that are identified for each topic, and provide the information that is requested:

- Protection of Human Subjects (click and follow instructions)
- Data and Safety Monitoring Plan (click and follow instructions)
- Inclusion of Women and Minorities (click and follow instructions)
  Targeted/Planned Enrollment Table (MS Word or PDF)
- Inclusion of Children (click and follow instructions)

If your application involves collaborating sites, provide information for each of the issues identified above for each participating site.

Guidance and Additional Instructions

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research. If you are uncertain as to whether your research includes a clinical trial please read: Question 4: Does your proposed research include a clinical trial?

If you need to consider an alternative scenario, return to the Decision Table for Section E.

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

Scenario F: NIH Defined Phase III Clinical Trial

Criteria

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

Instructions and Required Information

Check the box marked “Yes” for item 4 on the Face Page, for item 4a check the box marked “No,” and for item 4b enter your OHRP assurance number in the space provided.

In your application narrative, create a section entitled “E. Human Subjects Research” immediately following the last entry in the Research Design and Methods section. Include the following statement below the heading: ”This Human Subjects Research is an NIH-Defined Phase III Clinical Trial.”

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

- Protection of Human Subjects (click and follow instructions)
- Data and Safety Monitoring Plan (click and follow instructions)
- Inclusion of Women and Minorities (click and follow instructions)
  Targeted/Planned Enrollment Table (MS Word or PDF)
- Inclusion of Children (click and follow instructions)

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

Guidance and Additional Instructions

The material that you provide will be used by reviewers as part of their evaluations on the research design and methods of your proposed research. If you are uncertain as to whether your research includes clinical research, read Question 5: Does your proposed research meet criteria for an NIH-Defined Phase III Clinical Trial?

If you need to consider an alternative scenario, return to the Decision Table for Section E.

After you have completed this section of the application, proceed to Section F. Vertebrate Animals.

HUMAN SUBJECTS RESEARCH DEFINITIONS

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.

HHS 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: (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. For the purpose of the Guidelines 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.

Data and Safety Monitoring Plan. NIH requires a data and safety monitoring plan for each clinical trial 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*.

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 HHS 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*

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. [OHRP's Coded Specimen Guidance]

Research. HHS 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.

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 HHS 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).

(See the following guidance from the Office for Human Research Protections (OHRP) for additional information and examples: http://www.hhs.gov/ohrp/humansubjects/guidance/cdeiol.pdf.)

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.

HUMAN SUBJECTS RESEARCH POLICY

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

Protection of Human Subjects

The Department of Health and Human Services (HHS) 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 HHS. The regulations stipulate that an applicant organization, whether domestic or foreign, bears responsibility for safeguarding the rights and welfare of human subjects in HHS-supported research activities. The regulations require that applicant organizations proposing to involve human subjects in nonexempt research, provide written Assurance of Compliance with the Office for Human Research Protections (OHRP), that they will comply with requirements set forth in the HHS regulations to protect 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 20852 or by contacting OHRP at ohrp@osophs.dhhs.gov; Telephone: 1-866-447-4777 or (301) 496-7005.

Under HHS regulations to protect human subjects from research risks, 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. 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.

No non-exempt research involving human subjects can be conducted under a HHS award unless that organization is operating in accord with an approved Assurance of Compliance and provides verification that an Institutional Review Board (IRB) that is registered under the specific Assurance has reviewed and approved the proposed activity in accordance with the HHS 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 HHS regulations. Foreign applicant organizations must also comply with the provisions of the regulations.

In addition to the HHS human subjects regulations, FDA regulations (21 CFR part 50; 21 CFR part 56) may also apply to your research. FDA regulations generally apply to biomedical research involving an unapproved drug, device or biologic and may apply to certain studies of approved products. Researchers proposing such research should consult with their IRB and the FDA to determine whether and how the FDA regulations may apply. Additional information on FDA regulations is available at http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm.

Studies that involve the deliberate transfer of recombinant DNA, or DNA or RNA derived from recombinant DNA, into human research participants (known as “human gene transfer” or “gene therapy”) are subject to the oversight and biosafety requirements outlined in the NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines) when these studies are conducted at, or sponsored by, an institution that receives any NIH support for recombinant DNA research. These requirements, which include review by an Institutional Biosafety Committee and submission to the NIH for review by the Recombinant DNA Advisory Committee, are described in Section III-C-1 and Appendix M of the NIH Guidelines (accessible at: http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html). 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.

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 that is available to help investigators understand how these federal requirements apply to their research. See http://grants.nih.gov/grants/policy/hs/index.htm.

The HHS regulations also require “Evaluation and disposition of applications and proposals for research to be conducted or supported by a Federal Department or Agency” (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.

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, which describe the additional protections required for these 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. Relevant information may be obtained at the OHRP website (http://www.hhs.gov/ohrp/policy/index.html).

REMINDER: HHS 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 educational tests or research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

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. 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. 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.

Research on Transplantation of Human Fetal Tissue

In signing the application Face Page, the duly authorized 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, HHS, 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 HHS access to those records, if maintained by an entity other than the applicant organization.

Research Using Human Embryonic Stem Cells

http://stemcells.nih.gov/index.asp

In signing the application Face Page, the duly authorized 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).

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 OHRP-registered IRB. See http://www.hhs.gov/ohrp/ to register an IRB. Documentation of IRB approval must be sent to the Grants Management Office identified in the notice requesting certification. This IRB certification must include: the PHS application number, title of the project, name of the principal investigator/program director, date of IRB approval, and appropriate signatures. You may also use the optional form "Protection of Human Subjects - Assurance Identification/IRB Certification/Declaration of Exemption (Common Rule) (OMB Form No. 0990-0263) to meet this requirement: http://www.hhs.gov/ohrp/humansubjects/assurance/OF310.rtf

An institution is automatically considered to be engaged in human subjects research when it receives an NIH award to support nonexempt human subjects research. All institutions engaged in human subjects research must obtain a Federal Wide Assurance (FWA) from OHRP. Instructions for applying for a Federal Wide Assurance (FWA) are available from the OHRP website at http://www.hhs.gov/ohrp/assurances/assurances_index.html.

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

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.

Required Education in the Protection of Human Research Participants

NIH requires education on the protection of human research participants for all individuals identified as Key Personnel before funds are awarded for applications or contract proposals involving human subjects. For information relating to this requirement, see the following 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 found 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 Key Personnel involved in human subjects research. Although NIH does not endorse 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.

Relevant Policies and Information

PROCEDURES FOR SUBMISSION OF COMPLIANCE DOCUMENTS TO THE HUMAN PLURIPOTENT STEM CELL REVIEW GROUP FOR THE RESEARCH USE OF HUMAN EMBRYONIC GERM CELLS	NOTICE: NOT-OD-02-049 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-049.html
GUIDANCE FOR INVESTIGATORS AND INSTITUTIONAL REVIEW BOARDS REGARDING RESEARCH INVOLVING HUMAN EMBRYONIC STEM CELLS, GERM CELLS AND STEM CELL-DERIVED TEST ARTICLES	NOTICE: NOT-OD-02-044 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-044.html
IMPLEMENTATION ISSUES FOR HUMAN EMBRYONIC STEM CELL RESEARCH - FREQUENTLY ASKED QUESTIONS	NOTICE: NOT-OD-02-014 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-014.html
FEDERAL GOVERNMENT CLEARANCES FOR RECEIPT OF INTERNATIONAL SHIPMENT OF HUMAN EMBRYONIC STEM CELLS	NOTICE: NOT-OD-02-013 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-013.html
NOTICE OF EXTENDED RECEIPT DATE AND SUPPLEMENTAL INFORMATION GUIDANCE FOR APPLICATIONS REQUESTING FUNDING THAT PROPOSES RESEARCH WITH HUMAN EMBRYONIC STEM CELLS	NOTICE: NOT-OD-02-006 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-006.html
NOTICE OF CRITERIA FOR FEDERAL FUNDING OF RESEARCH ON EXISTING HUMAN EMBRYONIC STEM CELLS AND ESTABLISHMENT OF NIH HUMAN EMBRYONIC STEM CELL REGISTRY	NOTICE: NOT-OD-02-005 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-005.html
NIH FUNDING OF RESEARCH USING SPECIFIED EXISTING HUMAN EMBRYONIC STEM CELLS	NOTICE: NOT-OD-01-058 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-059.html

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

It is the policy of NIH 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 Institute/Center 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 Institute/Center 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.

NIH Policy on Inclusion of Children

(See Definition of "child".)

Research involving children must comply with the NIH Policy and Guidelines on the Inclusion of Children in Clinical Research. The following excerpts provide the key policy statements. Investigators should obtain full copies of the Policy and Guidelines from NIH staff, or from the NIH grants Web site under 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.

In addition, 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.

Additionally, 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.

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 categories in this classification are social-political constructs and should not be interpreted as being anthropological in nature. The standards were revised in 1997 and now include two ethnic categories, "Hispanic or Latino" and "Not Hispanic or Latino." There are 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. 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. (http://grants.nih.gov/grants/funding/women_min/guidelines_amended_10_2001.htm).

Guidance on Collecting Race and Ethnicity Data from Study 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 and that meets the OMB requirements can be found in the Ethnic Origin and Race section of the Personal Data Form Page (MS Word or PDF).

See NIH Policy on Inclusion of Women and Minorities.

Collecting Data on Foreign Populations: If you are conducting clinical research outside of the US, you should design culturally sensitive and appropriate data collection items and instruments that allow subjects to self-identify their ethnic and racial affiliation in a culturally appropriate manner. These items, however, should be designed in a way that allow you, the investigator, to aggregate the information into the OMB minimally required ethnic and racial categories when reporting the information to NIH.

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. Under these circumstances, investigators are not required to re-contact subjects solely to comply with the newly revised categories. If the existing data on ethnicity and race allow accurate correspondence with the new categories, the investigator can use the format in the Targeted/Planned Enrollment table (MS Word or PDF). However, if the existing data do not allow accurate correspondence with the new categories, information may be reported using the former categories and according to the format in the 4/98 Version of the Inclusion Table http://grants.nih.gov/grants/funding/women_min/InclusionOld_Form.pdf.

Annual Progress Reports (Type 5 applications) and Competing Supplement Applications

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 EITHER the

new Inclusion Enrollment Report (MS Word or PDF) OR the format in the former 4/98 Version of the Inclusion Table (MS Word or PDF).

For competing supplement applications, any proposed additions to the Targeted/Planned Enrollment Table should be provided, in addition to the current Inclusion Enrollment Table.

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

Investigators may choose to report ethnicity/race and sex/gender sample composition using EITHER the new Inclusion Enrollment Report (MS Word or PDF) OR the format in the former 4/98 Version of the Inclusion Table (MS Word or PDF).

[Note: If investigators with on-going data collection choose to report information using the new Inclusion Enrollment Report, they must continue to use this format for the remaining years of the project.]

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

Investigators may EITHER continue to report using the former categories and according to the 4/98 Version of the Inclusion Table, OR, if data allow accurate correspondence with the new categories, use the format in the new Inclusion Enrollment Report.

Additional Information

Additional information on NIH policy regarding the Inclusion of Women and Minorities in Clinical Research can be found at the website http://grants.nih.gov/grants/funding/women_min/women_min.htm.

PART III

Policies, Assurances, Definitions, and Other Information

I. POLICY

A. 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 then is resubmitted as an R21).

Since an RFA often has special considerations of eligibility, scientific scope, and review criteria, it is felt that most unfunded applications should be resubmitted as **new** applications. Similarly, a change of grant mechanism (from an R01 to an R21 or from an R03 to an R01, for example) 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 to submit two revisions (see http://grants.nih.gov/grants/policy/amendedapps.htm).

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). It must not include an Introduction describing the changes and improvements made and the text must not be marked 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 two revised versions 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 revised 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.

B. Revised NIH Policy on Submission of a Revised (Amended) Application

See: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-041.html.

The NIH will not consider a third revision (A3) or higher amendment to an application for extramural support. There is no longer a time limit for the submission of the first and second revisions (A1 and A2). This policy applies to all NIH extramural funding mechanisms.

In submitting a revised application, it is worth noting that 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. Principal investigators and their institutions need to exercise their best judgment in determining the advisability of submitting a revised application after several years have elapsed.

The policy limiting the number of revisions was established following analysis of data indicating that investigators who receive initial funding for an amended application have a lower success rate in obtaining support for a follow-on competing application. The likelihood of subsequent success decreased with an increasing number of amendments. After three reviews, it was felt that it was time for investigators to take a fresh approach to their research proposals.

Investigators who have submitted three versions of an application and have not been successful often ask NIH staff how different the next application submitted has to be 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 three reviews is expected to be substantially different in content and scope with more significant differences than are normally encountered in a revised 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.

C. Resource Sharing

1) Data Sharing Policy: All investigator-initiated applications with direct costs of $500,000 or greater in any single year will be expected to address data-sharing in their application. Applicants are encouraged to discuss their data-sharing plan 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, Program Announcements (PA) may request data-sharing plans for applications that are less than $500,000 direct costs in any single year. Reviewers will not factor the proposed data-sharing plan into the determination of scientific merit or priority score. Program staff will be responsible for overseeing the data-sharing policy and for assessing the appropriateness and adequacy of the proposed data-sharing plan.

NIH recognizes that data-sharing may be complicated or limited, in some cases, by institutional policies, local IRB rules, as well as local, state and Federal laws and regulations, including the Privacy Rule. As NIH stated in the March 1, 2002 draft data-sharing statement (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-035.html),

the rights and privacy of people 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 our website at http://grants.nih.gov/grants/ policy/data_sharing/.

2) Sharing Model Organisms: All applications where the development of model organisms is anticipated are 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.

The adequacy of plans for sharing model organisms will be considered by the reviewers when a competing application is evaluated. Reviewers will be asked to describe their assessment of the sharing plan in an administrative note, and, normally, will not include their assessment in the overall priority score.

Note unlike the data sharing requirement above, this requirement is for **all** applications.

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.

D. Inventions and Patents

As specified in 45 CFR Part 74 and in 37 CFR 401.1(b), fellowships that are funded primarily for educational purposes, where the training will occur other than at NIH, are not subject to invention reporting requirements. Also, no fellowship made by NIH to an awardee primarily for educational purposes, where the training will occur other than at NIH, may contain any provision giving NIH any rights to inventions made by the awardee.

E. Just-In-Time Policy

Several elements of an application are no longer required at the time the application is submitted. Instead, this information will be requested later in the review cycle (i.e., "just-in-time") to ensure that it is current. The information eligible for just-in-time submission for individual fellowship applications includes:

- Certifications:
    - If human subjects are involved, provide the assurance type and number (if not previously provided) and the Certification of IRB Review and Approval. Pending or out-of-date approvals are not acceptable.
    - If vertebrate animals are involved and this information was not previously provided on the Face Page of the application, provide assurance number, verification of IACUC approval with date, and any IACUC-imposed changes. Pending or out-of-date approvals are not acceptable.
- Human Subjects Education: For grants involving Human Subjects, provide certification that each person identified under 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**.**

Applicants are advised to submit this information (countersigned by an authorized business official) 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 now 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.

F. 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. Form Page 1 includes a field for the organization's DUNS number. The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services. An authorized organizational official should be consulted to determine the appropriate number. If the organization does not have a DUNS number, an authorized organizational official should complete the US D&B D-U-N-S Number Request Form or contact Dun and Bradstreet by telephone directly at 1-866-705-5711 (toll-free) to obtain one. A DUNS number will be provided immediately by telephone at no charge. Note this is an organizational number. Individual principal investigators do not need to register for a DUNS.

II. 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 your project, program, or type of applicant organization. There are a number of additional public policy requirements with which applicants and grantees must comply. Contact your 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 duly authorized representative of the applicant organization certifies that the applicant organization will comply with the following policies, assurances and/or certifications:

A. Human Subjects Research

(Also see **Part II: Supplemental Instructions for Preparing the 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 an applicant 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 file a written Assurance of Compliance with the Office for Human Research Protections (OHRP), establishing 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 20854, 1-866-447-4777 or (240) 453-6900.

No non-exempt research involving human subjects can be conducted under a DHHS-sponsored award unless that organization is operating in accordance with an approved Assurance of Compliance and provides verification that an appropriate Institutional Review Board (IRB) has reviewed and approved the proposed activity in accordance with the DHHS regulations. An award will not be made to an applicant unless that applicant 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.

The Center of Biologics Evaluation and Research (CBER) at FDA regulates the use of biological products in humans, at the investigational and marketing phases, including somatic cell therapies and gene therapies. If your work involves these areas or preclinical research that will support later work in these areas, please see the Office of Recombinant DNA Activities Web site at http://www4.od.nih.gov/oba/.

Note: Under HHS regulations to protect human subjects from research risks, certain research areas are exempt. (See Exemption Categories). Nonetheless, with the exception of research projects that meet the criteria for Exemption 4, studies that are exempt from the human subjects regulations must still address the inclusion of women and minorities and children in the study design. Therefore, applications will be evaluated for compliance with this policy. Research involving the collection or study of existing data, documents, records, pathological specimens, diagnostic specimens, or tissues that are individually identifiable to the investigator(s) are also to be included within the term “research involving human subjects.”

Inappropriate designations of the noninvolvement of human subjects or of exempt categories of research may result in delays in the review of an application or the return of the application without review.

Federal requirements to protect human subjects would apply to research on human specimens (such as cells, blood, and urine), residual diagnostic specimens and/or medical information, when these specimens and/or medical information are from living individuals who are individually identifiable to the investigator(s).

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, which describe the additional protections required for these populations. Relevant information may be obtained at the OHRP website (http://www.hhs.gov/ohrp/policy/index.html).

REMINDER: HHS 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 Human Subjects Research Supplement) 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 of children when the investigator(s) do not participate in the activities being observed.

DATA AND SAFETY MONITORING

NIH requires oversight and monitoring of all human intervention studies to ensure the safety of participants and the validity and integrity of the data. A data and safety monitoring plan is required for each clinical trial. This policy is in addition to any monitoring requirements imposed by 45 CFR Part 46.

The detailed data and safety monitoring plans must be submitted to the applicant's IRB and subsequently to the funding IC for approval prior to the accrual of human subjects. The level of monitoring should be commensurate with the risks and the size and complexity of the clinical trial. The establishment of data safety monitoring boards (DSMBs) is required for multi-site clinical trials involving interventions that entail potential risk to the participants. A DSMB also may be appropriate for clinical trials if the studies have multiple clinical sites, are blinded (masked), or employ particularly high-risk or vulnerable populations.

Summary reports of adverse events must be provided to the NIH funding institute/center 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 as Key Personnel 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 (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 Key Personnel. While 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.

B. Research on Transplantation of Human Fetal Tissue

In signing the application Face Page, the duly authorized 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.

C. Research Using Human Embryonic Stem Cells

http://stemcells.nih.gov/index.asp

In signing the application Face Page, the duly authorized 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).

D. NIH Policy on the Inclusion of Women and Minorities as Subjects in Clinical Research

It is the policy of NIH 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 Institute/Center 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 Institute/Center 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.

NIH POLICY ON REPORTING RACE AND ETHNICITY DATA: SUBJECTS IN CLINICAL RESEARCH

Also see "**Guidance on Reporting Ethnicity/Race and Sex/Gender in Clinical Research"** in Human Subjects Research Supplemental Instructions**.**

The NIH has adopted the 1997 Office of Management and Budget (OMB) revised 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 1997 OMB revised minimum standards 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. Using self-reporting or self-identification to collect an individual's data on ethnicity and race, investigators should use two separate questions with ethnicity information collected first followed by the option to select more than one racial designation.

Collection of this information and use of these categories is required for research that meets the NIH definition of clinical research.

Revised Minimum Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity

The following are the ethnic and racial definitions for the minimum standard categories (1997 OMB Directive 15):

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 also 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 affiliations 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.

Using respondent self-report or self-identification to collect an individual's data on ethnicity and race, investigators should use two separate questions with ethnicity information collected first followed by the option to select more than one racial designation.

When reporting these data in the aggregate, investigators should report: (a) the number of respondents in each ethnic category; (b) the number of respondents who selected only one category for each of the five racial categories; (c) the total number of respondents who selected multiple racial categories reported as the "number selecting more than one race"; and (d) the number of respondents 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 items should be designed in a way that they can be aggregated into the required categories for reporting purposes. 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.

E. NIH Policy on Inclusion of Children

(See Definition of "child".)

Research involving children must comply with the NIH Policy and Guidelines on the Inclusion of Children in Clinical Research. The following excerpts provide the key policy statements. Investigators should obtain full copies of the Policy and Guidelines from NIH staff, or from the NIH grants Web site under 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.

In addition, 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.

Additionally, 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.

F. Vertebrate Animals

NIH no longer requires Institutional Animal Care and Use Committee (IACUC) approval of the proposed research **before NIH peer review** of an application (http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-064.html).

In August, 2002 NIH announced an IACUC "just-in-time" process for applications submitted for the October 1, 2002 deadline or other deadlines where the applications had a May/June 2003 Council review. The PHS policy requirement that no award may be made without an approved Assurance and without verification of IACUC approval remains in effect. The new policy gave institutions flexibility in the timing of IACUC review relative to the submission of an application and the verification of IACUC review. The policy does not require that IACUC approval be deferred. Institutional officials retain the discretion to require IACUC approval prior to NIH peer review in circumstances of their choosing if deemed necessary. As part of the NIH peer review process, the scientific review group will continue to address the adequacy of animal usage and protections in the review of an application and will continue to raise any concerns about animal welfare issues. Verification of IACUC approval will be required in a "just-in-time" fashion prior to award.

The PHS Policy on Humane Care and Use of Laboratory Animals requires that applicant organizations proposing to use vertebrate animals file a written Animal Welfare Assurance with the Office of Laboratory Animal Welfare (OLAW), establishing appropriate policies and procedures to ensure the humane care and use of live vertebrate animals involved in research activities supported by the PHS. The PHS policy stipulates that an applicant organization, whether domestic or foreign, bears responsibility for the humane care and use of animals in PHS-supported research activities. This policy implements and supplements the U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training and requires that institutions use the Guide for the Care and Use of Laboratory Animals as a basis for developing and implementing an institutional animal care and use program. This policy does not affect applicable 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, as applicable, with the Animal Welfare Act as amended (7 USC 2131 et sec.) 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.

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."

No PHS award for research involving vertebrate animals will be made to an applicant organization unless that organization is operating in accordance with an approved Animal Welfare Assurance and provides verification that the IACUC has reviewed and approved the proposed activity in accordance with the PHS policy. Applications may be referred by the PHS back to the IACUC for further review in the case of apparent or potential violations of the PHS policy. No award to an individual will be made unless that individual is affiliated with an assured organization that accepts responsibility for compliance with the PHS policy. Foreign applicant organizations applying for PHS awards for activities involving vertebrate animals are required to comply with PHS policy or provide evidence that acceptable standards for the humane care and use of animals will be met.

G. 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 45 CFR 76, "Government-wide Debarment and Suspension (Nonprocurement)." 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. For Kirschstein-NRSA Individual Fellowships, this policy applies to the individual applicant as well as the sponsoring institution.

H. 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.

I. Nondelinquency 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.

J. 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 (1) 42 CFR Part 50, Subpart A, "Responsibilities for PHS Awardee and Applicant Institutions for Dealing with and Reporting Possible Misconduct in Science" and (2) 42 CFR 94, "Public Health Service Standards for the Protection of Research Misconduct Whistleblowers" (effective on the date set forth in the final rule).

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 scientific misconduct under 42 CFR Part 50, Subpart A, and for protecting research misconduct whistleblowers under 42 CFR Part 94;
2. The institution has established policies and procedures incorporating the provisions set forth in 42 CFR Part 50, Subpart A, and 42 CFR Part 94;

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. Department 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.

K. 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 HHS 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 HHS 690 is available from http://www.hhs.gov/ocr/ps690.pdf.

Assurance of Compliance Form HHS 690 is now used in lieu of individual assurances: Form HHS 441, Civil Rights; Form HHS 641, Handicapped Individuals; Form HHS 639-A, Sex Discrimination; and Form HHS 680, Age Discrimination.

L. 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. Further, the NIH Guidelines include special review and reporting requirements for the conduct of human gene transfer studies (under Appendix M). 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.

M. 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; and it will make information available to NIH, upon request, as to how identified conflicting interests have been handled.

N. 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.

O. 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.

P. Prohibition on Awards to 501(c)4 Organizations That Lobby

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.”

Q. Prohibited Research

BAN ON FUNDING OF HUMAN EMBRYO RESEARCH (SECTION 510)

This section continues the current ban that prohibits NIH 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. The URL is http://stemcells.nih.gov/index.asp.

LIMITATION ON USE OF FUNDS FOR PROMOTION OF LEGALIZATION OF CONTROLLED SUBSTANCES (SECTION 511)

"(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 (SECTION 505)

"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 (SECTION 508)

"(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."

R. Select Agents and Toxins

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/docs/ 42cfr73.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.

Research involving select agents and recombinant DNA molecules also is subject to the NIH Guidelines for Research Involving DNA Molecules (NIH Guidelines) (see Recombinant DNA and Human Gene Transfer Research in this subsection for applicability of these guidelines).

III. DEFINITIONS/GLOSSARY

(See also Human Subjects Research 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 or any collaborating site or other 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, or in the case of a publicly owned business, at least 51% of its voting stock is owned by United States citizens or lawfully admitted permanent resident aliens.
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 121.3-2(a). The term "number of employees" is defined in 13 CFR 121.3-2(t).

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.

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.

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.

NIH. National Institutes of Health, which is a component of HHS.

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.

Revised (Amended) Application. Resubmission of an unfunded application that has been changed significantly in response to the previous review.

Scientific Review Administrator. 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.

IV. GENERAL INFORMATION

A. Research Grant Mechanisms

The following table summarizes the Training, Fellowships and Career Development Program mechanisms NIH uses. For more detailed information, visit the OER Grants website http://grants.nih.gov/grants/oer.htm.

Type (Mechanism)	Description
Training, Fellowships and Career Development Programs	
NIH Institutional Ruth L. Kirschstein National Research Service Award (T32/ T34/T35) http://grants.nih.gov/grants/guide/pa-files/PA-00-103.html	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.
Individual Ruth L. Kirschstein National Research Service Award Fellowships) (NRSA: F30/F31/F32/F33) 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) 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.
APPLICATIONS AVAILABLE FROM OTHER OFFICES	
International Research Fellowship Award Application (NIH 1541-1)	Fogarty International Center (FIC) (301) 496-1653

B. 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 courier deliveries (i.e. FEDEX, UPS, DHL, etc.) for the receipt 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 NO LONGER 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.

C. 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.

D. Information Available to the Principal Investigator

Under the provisions of the Privacy Act, principal investigators may request copies of records pertaining to their grant applications from the PHS component responsible for funding decisions. Principal investigators 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.

E. Information Available to the General Public

The PHS makes information about awarded grants available to the public, including the title of the project, the grantee institution, the principal investigator, 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 used for the dissemination of scientific information and for scientific classification and program analysis purposes. These descriptions are available to the public from the NTIS.

NIH also routinely places information about awarded grants, including project title, name of the principal investigator, 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 information about grants upon request, regardless of the intended use of the information. 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 (initial, competing continuation, and supplemental) 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.

ACCESS TO RESEARCH DATA

By regulation (45 CFR 74.36), grantees that are institutions of higher education, hospitals, or non-profit organizations are required to provide, in response to a FOIA request, the research data first produced under the award. 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 to 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.

These requirements do 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.