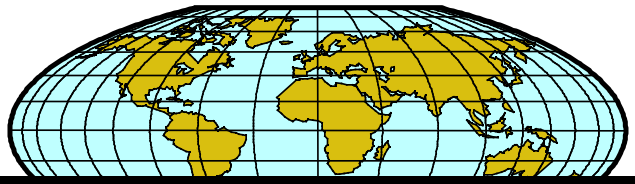
International Visiting Scientists and Technical Exchange Program



NIDA INVEST

INTERNATIONAL PROGRAM OF THE NATIONAL INSTITUTE ON DRUG ABUSE

INVEST Research Fellowship

Program Description, Application, and Instructions

Annual Application Deadline: April 1

The INVEST Research Fellowship provides a unique opportunity for postdoctoral training with an established scientist engaged in NIDA-supported research at a U.S. institution. Each Fellow receives training in drug abuse research methods and participates in professional development activities. Fellowships are peer-reviewed through a competitive process and are awarded for 1 year. Fellows may conduct their research in any aspect of the biomedical, social, and behavioral components of drug abuse and addiction. Previous Fellows have conducted research in all aspects of NIDA research, including basic neuroscience, epidemiology, prevention, treatment, preclinical, and clinical sciences. While additional funding is not guaranteed, INVEST Research Fellows learn about the National Institutes of Health (NIH) grants application process from a U.S. researcher who has been successful in seeking NIDA support. Fellows and their mentors develop jointly a potentially fundable collaborative research project to be carried out in the Fellow's home country. Fellows and their U.S. mentors are part of a network of international scientists who exchange information and collaborate on drug abuse research nationally, regionally, and globally.

Each Fellow receives a stipend of US$32,300. Living expenses are the responsibility of the Fellow and are paid out of the Fellowship stipend. In addition to the stipend, the Fellowship provides funds for round-trip travel from and to the home country for the Fellow only; health insurance for the Fellow only; and a supplemental professional development allowance.

To be eligible for the INVEST Research Fellowship, an applicant must:

- Be a citizen or permanent resident of a country other than the United States;
- Hold an earned doctoral degree in medicine, public health, or behavioral, biomedical, or social science;
- Have a minimum of 2 years of postdoctoral research experience;
- Have demonstrated the ability to engage in independent research;
- Have assurance from an institution in the home country that there is a position to which the applicant can return after completion of the Fellowship;
- Be proficient in written and spoken English;
- Be eligible for a J- 1 visa to enter the United States; and
- Live and work outside the United States at the time the application is submitted.

NIDA encourages outstanding scientists to apply for the competitive INVEST Research Fellowships. Interested persons should;

- Contact a NIDA- supported researcher in the United States who is willing to serve as a mentor, and develop a joint research plan for the Fellowship application. For assistance in locating a potential mentor, please contact the NIDA International Program.

- Write a detailed plan for working with the mentor in research relating to the cause, prevention, treatment, patterns, or consequences of drug abuse and addiction.

- Complete the attached application packet.

Annual Application Deadline: April 1
Annual Notification of Award: June 1
Fellowships must begin by December 31 of the year in which they are awarded.

To Apply

Each applicant for the INVEST Research Fellowship must:

- Complete Part I (items 1 through 16) on Page 1, plus Pages 2 through 8. Be sure to attach all supporting documents listed in the *Application Checklist*, Page 8.

- Forward your section of the application to your U.S. sponsor, who will complete Part II (items 17 through 20) on Page 1, plus Pages 9 through 13 before submitting the entire application.

- Ask your home country supervisor and two research colleagues to complete a *Reference Report* and submit it directly to the NIDA INVEST Fellowship Program.

- Attach an *Assurance Statement of Future Position* from an institution in your home country verifying that there is a position to which you can return at the completion of the Fellowship.

- Submit the completed application by **April 1** to:
  NIDA/INVEST Research Fellowship Program
  c/o IQ Solutions
  11300 Rockville Pike, Suite 801
  Rockville, Maryland 20852 USA
  Telephone: +1-301-984-1471
  Fax: +1-301-984-1473
  E-mail:invest@iqsolutions.com

Preparing Your INVEST Research Fellowship Application

The INVEST Research Fellowship application requires contributions from the applicant, the sponsor, the applicant's current employer, and the applicant's references. Developing the research plan requires a significant amount of time, and applicants are urged to begin the process well in advance of the April 1 deadline. When both the applicant and the sponsor agree that the research plan is fully developed, begin to complete these application forms as follows:

- The **applicant** should complete Part I on Page 1, plus Pages 2 through 8. Be sure to attach all supporting documents specified in the *Application Checklist.* Complete Part I of the *Reference Report* and forward copies of it to your three references well in advance of the April 1 deadline.

- The **sponsor** should complete part II on Page 1, plus Pages 9 through 13 before submitting the application to the NIDA INVEST Research Fellowship Program no later than **April 1.**

- The **references** should complete the *Reference Report* and submit it directly to the NIDA INVEST Research Fellowship Program no later than **April 1.**

Please type or computer generate, single-spaced in black ink, and print single-sided with one-inch margins on all four sides. The application will be photocopied, so prepare all graphs, diagrams, tables, and charts in black ink. Materials that cannot be photocopied must be submitted in three collated sets.

The Research Plan

The research plan (Application Page 6) is one of the most important parts of the application. This section should be well formulated and presented in sufficient detail that the reviewers can evaluate its scientific merit. The applicant should actively seek the advice of the U.S. sponsor while preparing the research plan. The U.S. sponsor's collaboration is important, but the research plan **must** be written by the applicant.

Reviewers should not have to refer to the scientific literature, so be sure to include sufficient information, and identify all abbreviations. Be specific and informative, and avoid redundancy. Brevity and clarity in the presentation are considered indicative of an applicant's approach to a research objective and ability to conduct a superior project. The research plan should not exceed 10 pages in addition to the face page and use the following format:

(1) ***Abstract*** In 250 words, summarize the research plan, including the goals and methods.

(2) ***Specific Aims.*** State the specific purposes of the research and the hypothesis to be tested.

(3) ***Background and Significance.*** Briefly describe the background of the research plan. This is an important consideration in the initial review of your application. Concisely state the importance of the research plan by relating specific aims to broad, long-term objectives. Where data or other information from the sponsor's laboratory are used, provide appropriate citations for their published and unpublished observation.

(4) ***Experimental Design and Methods.*** Discuss in detail the following:

- The experimental design and procedures to be used to accomplish the specific aims;
- A tentative sequence for the investigation;
- The means by which the data will be analyzed;
- The choice of any procedures involving human subjects or vertebrate animals;
- Any precautions necessary for procedures, situations, or materials that may be hazardous to personnel;
- Potential experimental difficulties; and
- Alternative approaches that could achieve the desired aims.

(5) ***Human Subjects/Vertebrate Animals.*** If the research involves human subjects or vertebrate animals, be sure that both the applicant and the sponsor provide all the information requested in the application. Fellowship applications are subject to the same Human Subjects and Animal Welfare polices, guidelines, and review considerations as are all NIH research project grant applications. See Appendix A for more detailed information about Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC) approvals.

(6) ***Literature Citations.*** Provide literature citations at the end of the Research Plan. Each citation must include the names of all authors, name of the book or journal, volume number, page numbers, and year of publication.

Other Required Items

The applicant is required to submit additional materials, which will not be duplicated for the scientific review but will be used by the NIDA International Program to administer the application review and Fellowship award. Without the following documents, an application will be incomplete and will not be considered:

- ***Visa information.***

- ***Assurance Statement of Future Position.*** The application must include a statement (in English) on official institution stationery, from an institution in the applicant's home country that a position will be available to him or her when the Fellowship is complete. The statement should indicate the title of the future position and what opportunities the Fellow will have to use the research experience gained during the Fellowship.

- ***Doctoral Degree Certification.*** An official certification of a doctoral degree in the biomedical sciences, with English translation, must be included.

- ***Application Checklist.*** The checklist serves to alert the NIDA International Program and reviewers to any missing documents. Do not check off documents or items that are not included in the application at the time of mailing.

- ***Test of English as a Foreign Language (TOEFL) Score.***

Review Criteria

Applications are peer-reviewed through a competitive process and assessed according to scientific merit, the proposal's relevance to drug abuse and NIDA's research mission, adequacy of the applicant's education and experience to conduct the proposed research, likelihood that the proposed research could be completed within one year, and compatibility of applicant's and sponsor's objectives. Several factors can adversely affect the rating of an application:

Applicant

- Did not write the research plan
- Did not consult the sponsor in developing the research plan
- Background does not indicate that the applicant could conduct the proposed research
- Lacks research experience
- Has not written a peer-reviewed publication in the area of proposed research
- Letters of reference do not support the applicant's scientific ability
- Overqualified for the NIDA INVEST Research Fellowship
- Has already had similar training in a U.S. laboratory

Research Plan

- Focused on learning techniques or obtaining clinical specialty training rather than conducting drug abuse research
- Inadequately reviewed the literature
- Did not clearly identify the applicant's role in the proposed research
- Not consistent with the applicant's long-term career goals
- No clear indication that skills and information obtained in the United States will be utilized when the applicant returns home
- Too ambitious for the proposed time period
- Does not set priorities
- Too circumscribed
- Flawed concept

- More sophisticated than is compatible with the applicant's previous research
- Does not add significantly to the applicant's current research or knowledge.
- Demonstrates lack of communication between applicant and sponsor
- Merely repeats research conducted by the applicant, sponsor, or others
- Abstracted from sponsor's ongoing research project
- Deficient experimental design
- No clearly stated objectives
- Poorly organized
- Unfocused
- Problem to be studied is not commensurate with the proposed methods
- Lacks proper controls
- Does not use state-of-the-science techniques
- Does not explain choice of methods or subjects
- Does not characterize the patient population to be studied
- Reveals naiveté about limitations of the proposed methods
- Does not discuss alternative approaches or methods
- Does not indicate how results will be interpreted or evaluated

Research Resources and Environment

- Sponsor lacks expertise in research area
- Sponsor lacks experience in training Fellows or other students
- Sponsoring Institution is unable to provide resources necessary for the successful completion of the Fellowship
- Sponsor's understanding of the research plan differs from applicant's
- Sponsor and applicant do not demonstrate a collegial relationship

Appendix A: Background Information and Specific Instructions on Human Subjects and Animal Welfare

1. Human Subjects Regulations

As one of 25 research institutes and centers of the National Institutes of Health, NIDA is subject to all Public Health Service (PHS) and Department of Health and Human Services (DHHS) regulations. 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 a sponsoring institution, whether domestic or foreign, bears responsibility for safeguarding the rights and welfare of human subjects in DHHS-supported research activities. The regulations require that sponsoring institutions proposing to involve human subjects in nonexempt 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 46, Protection of Human Subjects, are available from OHRP, National Institutes of Health, Bethesda, Maryland 20892-7507, USA. Telephone: +1-301-496-7041.
E-mail: ohrp@od.nih.gov.

The regulations define "human subject" as "a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual or (2) identifiable private information." The regulations extend to the use of human organs, tissues, and body fluids from individually identifiable human subjects as well as to graphic, written, or recorded information derived from individually identifiable human subjects. The use of autopsy materials is governed by applicable State and local laws and is not directly regulated by 45 CFR 46.

Research activities in which the only involvement of human subjects will be in one or more of the following six categories are exempt from coverage by the regulations:

(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (a) research on regular and special education instructional strategies or (b) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless (a) information obtained is recorded in such a manner that human subjects can be identified directly or through identifiers linked to the subjects and (b) 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.

(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 (2)(b) of this section, if (a) the human subjects are elected

or appointed public officials or candidates for public office or (b) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

(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.

(5) Research and demonstration projects which are conducted by or subject to the approval of department or agency heads and which are designed to study, evaluate, or otherwise examine (a) public benefit or service programs, (b) procedures for obtaining benefits or services under those programs, (c) possible changes in or alternatives to those programs or procedures, or (d) possible changes in methods or levels of payment for benefits or services under those programs.

(6) Taste and food quality evaluation and consumer acceptance studies, (a) if wholesome foods without additives are consumed or (b) 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.

Investigators who conduct research involving fetuses, pregnant women, children, human in vitro fertilization, or prisoners must follow the provisions of the regulations in Subparts B, C, and D of 45 CFR 46, which describe the additional protection required for these subjects.

No DHHS award for nonexempt research involving human subjects will be made to a sponsoring institution unless that institution is operating in accord with an approved Assurance of Compliance and provides certification that the Institutional Review Board (IRB) has reviewed and approved the proposed activity in accordance with the DHHS regulations. No award to an individual will be made unless that individual is affiliated with an assured institution that accepts responsibility for compliance with the DHHS regulations. Foreign institutions and researchers must also comply with the provisions of the regulations.

If human subjects will be used in the fellowship activities, the research plan and/or the sponsor's description of human subject use should address the following six points. In addition, when research involving human subjects will take place at collaborating sites or other performance sites, provide this information before discussing the six points. Although no specific page limitation applies to this section of the application, be succinct.

(1) Provide a detailed description of the proposed involvement of human subjects in the work previously outlined in the experimental 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. If women and/or minorities are not included in a given study, provide a clear rationale for their exclusion. Explain the rationale for the involvement of special classes of subjects, if any,

such as fetuses, pregnant women, children, human in vitro fertilization, prisoners or other institutionalized individuals, or others who are likely to be vulnerable.

(2) Identify the sources of research material obtained from individually identifiable living human subjects in the form of specimens, records, or data. Indicate whether the material or data will be obtained specifically for research purposes or whether use will be made of existing specimens, records, or data.

(3) Describe plans for the recruitment of subjects and the consent procedures to be followed, including 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. State if the IRB has authorized a modification or waiver of the elements of consent or the requirement for documentation of consent. The consent form, which must have IRB approval, should be submitted to NIDA only on request.

(4) Describe any potential risks (physical, psychological, social, legal, or other) and assess their likelihood and seriousness. Where appropriate, describe alternative treatments and procedures that might be advantageous to the subjects.

(5) Describe the procedures for protecting against or minimizing any potential risks, including risks to confidentiality, and assess their likely effectiveness. Where appropriate, discuss provisions for ensuring necessary medical or professional intervention in the event of adverse effects to the subjects. Also, where appropriate, describe the provisions for monitoring the data collected to ensure the safety of subjects.

(6) Discuss why the risks to subjects are reasonable in relation to the anticipated benefits to subjects and in relation to the importance of the knowledge that may reasonably be expected to result.

If you are exempt from the human subjects regulations, provide sufficient information to allow a determination that the designated exemptions are appropriate.

If a test article (investigational new drug, device, or biologic) is involved, name the test article and state whether the 30-day interval 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.

Gender and Minority Inclusion Policy

Research involving human subjects must comply with the "NIH Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research." Full copies of the Guidelines should be obtained from NIH staff, the NIH Guide for Grants and Contracts (March 18, 1994, Volume 23, Number 11) or the *Federal Register* (59 FR 11146-11151).

Research Involving Human Subjects. The NIH policy is that women and members of minority groups and their subpopulations must be included in all NIH-supported biomedical and behavioral research projects involving human subjects, unless a clear and compelling rationale shows 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 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. Describe the composition of the proposed study population in terms of gender and racial/ethnic group, and provide a rationale for selection of such subjects. Include a description of proposed outreach programs for recruiting women and minorities as participants.

Funding. Awards will not be made if the research project does not comply with this policy. In addition, awardees must report annually on enrollment of women and men, and on the race and ethnicity of research participants in the Annual Report Format shown below.

Additional Information. In conducting peer review for scientific and technical merit, NIH must evaluate proposed plans for inclusion of minorities and both genders, and recruitment/outreach as part of the scientific merit assessment.

Under DHHS regulations to protect human subjects from research risks, certain research areas are exempt from these regulations (Exemptions 1 through 6 on pages 7 and 8). Nonetheless, NIH-supported biomedical and behavioral research projects involving human subjects that are exempt from the human subjects regulations should still address in the study design the inclusion of women and minorities. Therefore, all biomedical and behavioral research projects involving human subjects will be evaluated for compliance with this policy. For example, research involving the collection or study of existing data, documents, records, pathological specimens, diagnostic specimens, or tissues that are individually identifiable should also be included within the term "research involving human subjects."

Annual Report Format for Each Study. Provide the number of subjects enrolled in the study to date according to the following categories. If there is more than one study, provide a separate table (see below) for each study. In addition, report on the subpopulations that are included in the study.

Annual Report Format. The following definitions apply for the racial and ethnic categories.

(1) ***Minority Groups***
A minority group is a readily identifiable subset of the U.S. population which is distinguished by either racial, ethnic, and/or cultural heritage.

The Office of Management and Budget (OMB) Directive No.15 defines racial and ethnic categories. NIH has chosen to use these definitions because they allow comparisons to many national data bases, especially national health data bases.

Gender and Minority Inclusion Study Title:							
	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not of Hispanic Origin	Hispanic	White, not of Hispanic Origin	Other or Unknown	Total
Female							
Male							
Unknown							
Total							

American Indian or Alaskan Native
A person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition.

Asian or Pacific Islander
A person having origins in any of the original peoples of the Far East, Southeast Asia, the India subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippines, and Samoa.

Black, not of Hispanic Origin
A person having origins in any of the black racial groups of Africa.

Hispanic
A person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.

(2) ***Majority Group—White, not of Hispanic Origin***
A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

NIH recognizes the diversity of the U.S. population and that changing demographics are reflected in the changing racial and ethnic composition of the population. The terms “minority groups” and “minority subpopulations” are meant to be inclusive, rather than exclusive, of differing racial and ethnic categories.

(3) ***Subpopulations***
Each minority group contains subpopulations, which 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 racial and ethnic origin. Attention to subpopulations also applies to individuals of mixed racial and/or ethnic parentage. Researchers should be cognizant of the possibility that these racial/ethnic combinations may have biomedical and/or cultural implications related to the scientific question under study.

Children Inclusion Policy

Research involving human subjects must also comply with the "NIH Policy and Guidelines on the Inclusion of Children as Participants in Research Involving Human Subjects." Full copies of the Guidelines should be obtained from the NIH Guide for Grants and Contracts (Web site: www.grants.nih.gov) or from the Grants Information Office, National Institutes of Health, Bethesda, Maryland 20892-7910, USA. Telephone: +1-301-435-0714.
E-mail: grantsinfo@nih.gov.

Research Involving Human Subjects. A March 6, 1998, announcement sets policy and guidelines on the inclusion of children in research involving human subjects that is supported or conducted by NIH. The goal of this policy is to increase the participation of children in research so that adequate data will be developed to support the treatment modalities for disorders and conditions that affect adults and may also affect children. For the purposes of this NIH policy, studies involving human subjects include categories of research that would otherwise be exempted from the DHHS Policy for Protection of Human Research Subjects. These categories of research are exempted from the DHHS policy because they pose minimal risk to the participants, and not because the studies should not include children. Examples of such research include surveys, evaluation of educational interventions, and studies of existing data or specimens that should include children as participants. Nevertheless, the inclusion of children as participants in research must be in compliance with all applicable subparts of Federal regulations protecting human subjects (45 CFR 46) as well as with other pertinent Federal laws and regulations whether or not the research is otherwise exempted from 45 CFR 46. The policy was developed because medical treatments applied to children are often based upon testing done only in adults, and scientifically evaluated treatments are less available to children due to barriers to their inclusion in research studies.

Inclusion of Children in Research. It is the policy of NIH that children (i.e., individuals under the age of 21) must be included in all human subjects research conducted or supported by NIH, unless there are scientific and ethical reasons not to include them. This policy applies to all NIH-conducted or supported research involving human subjects, including research that is otherwise "exempt" in accord with Sections 101(b) and 401(b) of 45 CFR 46 - Federal Policy for the Protection of Human Subjects. The inclusion of children as subjects in research must be in compliance with all applicable subparts of 45 CFR 46 as well as with other pertinent Federal laws and regulations. Therefore, proposals for research involving human subjects 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 the research plan, the investigator should create a section titled "Participation of Children." This section should provide either a description of the plans to include children and a rationale for selecting or excluding a specific age range of child, or an explanation of the reason(s) for excluding children as participants in the research. When children are included, the plan must also 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. NIDA will assess each application as being "acceptable" or "unacceptable" in regard to the age-appropriate inclusion or exclusion of children in the research

project, in addition to evaluating the plans for conducting the research in accord with these provisions.

Justifications for Exclusions. It is expected that children will be included in all research involving human subjects unless one or more of the following exclusionary circumstances can be fully justified:

(1) The research topic to be studied is irrelevant to children.

(2) There are laws or regulations barring the inclusion of children in the research. For example, the regulations for protection of human subjects allow consenting adults to accept a higher level of risk than is permitted for children.

(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 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 relative rarity of the condition in children, as compared with 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);

(b) The number of children is limited because the majority are already accessed by a nationwide pediatric disease research network, so that requiring inclusion of children in the proposed adult study would be both difficult and unnecessary (in that the topic was already being addressed in children by the network) as well as potentially counterproductive (in that fewer children could be available for the network study if other studies were required to recruit and include them);

(b) 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 to allow children to be included 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). While 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 aimed at collecting additional data on pre-enrolled adult study participants (e.g., longitudinal follow-up studies that did not include data on children).

(7) Other special cases justified by the investigator and found acceptable to the review group and the Institute Director.

For further information about the policy and relevant NIDA programs, contact the NIDA Office of Extramural Program Review, Bethesda, Maryland 20892, USA. Telephone: +1-301-443-2755. E-mail: tl25u@nih.gov.

Specific Instructions for Sponsors on Human Subject Approvals – Application Page 12, Items 2a-c

No Human Subjects Involved. If activities involving human subjects are not planned at any time during the proposed fellowship period, check "No" at Item 2a. The remaining parts of Item 2 are then not applicable.

Human Subjects Involved. If activities involving human subjects, whether or not exempt from Federal regulations for the protection of human subjects, are planned *at any time* during the proposed period of the fellowship, check "Yes" at Item 2a. If the activities are determined to be exempt from the regulations, insert the exemption number(s) corresponding to one or more of the six exemption categories (pages 7 and 8). The remaining parts of Item 2 are then not applicable. Inappropriate designations of the noninvolvement of human subjects or of exempt categories of research may result in delays in the review of an application. NIDA will make a final determination whether the proposed activities are covered by the regulations or are in an exempt category, based on the information provided in the Applicant's Research Plan (Application Page 6) and in the Sponsor's Statement (Application Page 11). In doubtful cases, consult: Office for Human Research Protections, National Institutes of Health, Bethesda, Maryland 20892-7507, USA. Telephone: +1-301-496-7041. E-mail: ohrp@od.nih.gov.

If the planned activities involving human subjects are not exempt, complete the remaining parts of Item 2.

Project Not Previously Reviewed by the IRB. If the proposed research involves human subjects but has not previously received an IRB review, the sponsor should have the IRB review completed before the application is submitted. However, if the IRB review is unavoidably delayed beyond the April 1 deadline, note that the IRB review is pending. A follow-up certification of IRB approval from an official signing for the sponsoring institution must then be sent to the NIDA International Program before the June 1 award announcement. This follow-up certification must include the title of the project; name of the applicant, sponsor, and sponsoring institution; Multiple Project Assurance of Compliance identification number; date of IRB approval; and appropriate signatures.

Any modifications to the research plan or the sponsor's description of human subject use that is required by the IRB must be submitted with the follow-up certification. It is the responsibility of

the sponsoring institution to submit the follow-up certification. NIDA does not guarantee that it will remind the sponsoring institution, the sponsor, or the fellowship applicant to provide the missing information. If certification of IRB approval is not received prior to the review date, the application will be considered incomplete.

Project Previously Reviewed by the IRB. In many instances, the fellow will be participating in research supported by research project grants for which IRB review of human subjects is already complete or an exemption is already designated. This review or exemption designation is sufficient, providing the research would not be substantially modified by the participation of the fellow. The appropriate grants must be identified along with their IRB review dates or exemption designation. If the sponsoring institution has an approved Multiple Project Assurance of Compliance on file with the OHRP that covers the specified activity, insert the Assurance identification number and the latest date of approval by the IRB of the proposed activities. This date must not be earlier than one year before the April 1 application deadline. This information in Items 2a and 2b and the appropriate signatures fulfill the requirement for certification of IRB approval.

Indefinite Project. If the sponsoring institution has an approved Assurance of Compliance on file with the OHRP but at the time of application, plans for the involvement of human subjects are so indefinite that IRB review and approval are not feasible, check "Yes" and insert "Indefinite." If an award is made, human subjects may *not* be involved until a certification of the date of IRB approval or a designation of exemption has been submitted to NIDA.

No Organizational Assurance of Compliance. If the sponsoring institution does not have on file with the OHRP an approved Assurance of Compliance, check "Yes" in Item 2a and insert "None" in Item 2b. In this case, the sponsoring institution, by the signatures on Page 12 of the Application, is declaring that it will comply with 45 CFR 46 (the regulations for Protection of Human Subjects) within 30 days of a specific request from the OHRP.

An IRB of an institution with a Multiple Project Assurance of Compliance may review an application through an expedited review procedure provided it complies with the provisions of Section 46.110 of the human subject regulations 45 CFR 46.

2. Animal Welfare Regulations

The PHS Policy on Humane Care and Use of Laboratory Animals requires that sponsoring institutions 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. This PHS policy stipulates that a sponsoring institution, 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, Maryland 20892-7982, USA. Telephone: +1-301-496-7163. E-mail: olaw@od.nih.gov.

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 a sponsoring institution unless that institution is operating in accordance with an approved Animal Welfare Assurance and provides verification that the Institutional Animal Care and Use Committee (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 institution that accepts responsibility for compliance with the PHS policy. Foreign institutions and researchers 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.

If vertebrate animals will be used in the fellowship activities, the research plan and/or the sponsor's description of human subject use should address the following five points. Although no specific page limitation applies to this section of the application, be succinct.

(1) Provide a detailed description of the proposed use of the animals in the work previously outlined in the experimental design and methods section. Identify the species, strains, ages, sex, and numbers of animals to be used.

(2) Justify the use of animals, the choice of species, and the numbers used. If animals are in short supply, costly, or to be used in large numbers, provide an additional rationale for their selection and their numbers.

(3) Provide information on veterinary care of the animals involved.

(4) Describe the procedures for ensuring that discomfort, distress, pain, and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices where appropriate to minimize discomfort, distress, pain, and injury.

(5) Describe any euthanasia method to be used and the reasons for its selection. State whether this method is consistent with the recommendations of the Panel on Euthanasia of the American Veterinary Medical Association. If not, present a justification for not following the recommendations.

Specific Instructions for Sponsors on Animal Welfare Approvals - Application Page 12, Items 3a-c

If activities involving vertebrate animals are planned *at any time* during the fellowship period, check "Yes" at Item 3a. If the sponsoring institution has an approved Animal Welfare Assurance

on file with the Office of Laboratory Animal Welfare (OLAW), insert at Item 3b and 3c the date of approval by the IACUC and the Assurance number.

If the IACUC review is unavoidably delayed beyond the submission of the application, check "Yes" and insert "Pending" at the IACUC approval date. A follow-up verification of IACUC approval from an official signing for the sponsoring institution must then be sent to the NIDA International Program before the June 1 award announcement.

Any modifications to the research plan or the sponsor's description of vertebrate animal use that is required by the IACUC must be submitted with the follow-up verification. It is the responsibility of the sponsoring institution to submit the follow-up verification. NIDA does not guarantee that it will remind the sponsoring institution, the sponsor, or the fellowship applicant to provide the missing information. If verification of IACUC approval is not received prior to the review date, the application will be considered incomplete.

Project Previously Reviewed by the IACUC. In many instances, fellows will be participating in research sponsored by research project grants for which the IACUC review has been obtained. This review is sufficient, providing the research would not be substantially modified by the participation of a fellow. The appropriate grants must be identified along with their IACUC review dates. If space is insufficient in Item 3, indicate at 3b "see Page 11" and provide the information there.

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" and insert "Indefinite" in Item 3b. If an award is made, vertebrate animals may not be involved until a verification of the date of IACUC approval has been submitted to NIDA.

No Institutional Animal Welfare Assurance. If the sponsoring institution does not have on file with OLAW an approved Animal Welfare Assurance, check "Yes" in Item 3a and insert "None" in Item 3b. In this case, the sponsoring institution, by the signatures on Page 12 of the Application, is declaring that it will comply with PHS policy regarding the care and use of animals by establishing an IACUC and submitting an Animal Welfare Assurance and verification of IACUC approval when requested to do so by OLAW.

Appendix B: Other Information

1. Additional Assurances and Certifications from U.S. Sponsoring Institution

a. Debarment and Suspension

Executive Order 12549, "Debarment and Suspension," mandated development of a Governmentwide 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 Governmentwide effort across procurement and nonprocurement debarment and suspension actions. This reciprocity rule is effective for any debarment, suspension, or other Governmentwide 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, "Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants)." Accordingly, before a grant award can be made, the sponsoring institution must make the following certification (Appendix A of the DHHS regulations):

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals (including research personnel):

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) If the sponsoring institution is unable to make the required certification, the official signing for sponsoring institution should sign the application on Page 12, and attach an explanation.

b. Drug-Free Workplace

Federal regulations implementing the Drug-Free Workplace Act of 1988 (Public Law 100-690, Title V, Subtitle D) require that all grantees receiving grants from any Federal agency certify to that agency that they will maintain a drug-free workplace. DHHS regulations implementing the Act are provided in 45 CFR 76, "Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants)." Accordingly, before a fellowship award can be made, the individual applying for the fellowship and the sponsor must check "Yes" in Item 14 on the application Pages 1 and 9, respectively, to make the certification below (Appendix C of the DHHS regulations). The certification is a material representation of fact upon which NIDA will rely. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or Governmentwide suspension or debarment.

"The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in conducting any activity with the grant."

c. 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 the Final Rule, 42 CFR 50, Subpart A, "Responsibilities for PHS Awardee and Applicant Institutions for Dealing with the Reporting Possible Misconduct in Science," and that it will comply with those policies and the requirements of the Final Rule.

The signature of the official signing for sponsoring institution on Page 12 of the application serves as certification that:

(1) The institution will comply with the requirements of the PHS regulations on responsibilities of awardee and applicant institutions for dealing with reporting research misconduct, in 42 CFR Part 50, Subpart A;

(2) The institution has established policies and procedures incorporating the provisions set forth in 42 CFR Part 50, Subpart A;

(3) The institution will provide its policies and procedures to the Office of Research Integrity upon request; and

(4) At the end of each calendar year, all institutions with research, research training, or research-related grants will make a submission (PHS Form 6349) comprising an aggregate report on their allegations, inquiries and investigations handled in the previous year. Form 6349 will be sent automatically to all PHS awardees by the Office of Research Integrity at the end of each calendar year.

Research Misconduct is defined by the Public Health Service as fabrication, falsification, plagiarism or other practices that seriously deviate from those that are commonly accepted within the research community for proposing, conducting or reporting research. It does not include honest error or honest difference in interpretation of judgments of data.

Falsification, fabrication, or plagiarism in an application is considered *per se* research misconduct unless the responsible person shows, following the exercise of due care, that the falsification, fabrication or plagiarism was due to honest error or honest differences in interpretation or judgments of data.

For further information, contact the Office of Research Integrity, Division of Policy and Education, Rockwall II, Suite 700, 5515 Security Lane, Rockville, Maryland 20852, USA. Telephone: +1-301-443-5300. E-mail: requests@osophs.dhhs.gov.

d. Assurance of Compliance (Civil Rights, Handicapped Individuals, Sex Discrimination, Age Discrimination)

Before a fellowship award can be made, a domestic sponsoring institution must certify that it has filed with the DHHS Office of Civil Rights: an Assurance of Compliance (Form HHS 690) with Title VI of the Civil Rights Act of 1964 (P.L.88-352, 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 the Grants Information Office, National Institutes of Health, Bethesda, Maryland 20892-7910, USA. Telephone: +1-301-435-0714. E-mail: grantsinfo@nih.gov.

e. Financial Conflict of Interest

Each institution that 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 Final Rule, 42 CFR Part 50, Subpart F, "Responsibility of Applicants for Promoting Objectivity in Research for which PHS Funding is Sought."

The signature of the official signing for the sponsoring institution serves as certification that:

(1) There is in effect at that institution an administrative process to identify and resolve conflicting financial interests of the type described in Subpart 50.605 (a) with respect to all research projects for which funding is sought from the PHS;

(2) The institution agrees to make information available to the PHS regarding all conflicting financial interests identified by the institution of the type described in Subpart 50.605 and how those interests have been resolved to protect the research from bias; and

(3) The institution will otherwise comply with 42 CFR Part 50, Subpart F.

Significant Financial Interests means anything of monetary value, including but not limited to salary or other payments for services (e.g., consulting fees or honoraria); equity interests (e.g., stocks, stock options, or other ownership interests); and intellectual property rights (e.g., patents, copyrights, and royalties from such rights). The term does not include:

(1) Salary, royalties, or other remuneration from the institution;

(2) Any ownership interests in the institution, if the institution is an applicant under the Small Business Innovation Research (SBIR) Program;

(3) Income from seminars, lectures, or teaching engagements sponsored by public or nonprofit entities;

(4) Income from service or advisory committees or review panels for public or nonprofit entities;

(5) An equity interest which meets both of the following tests: does not exceed $10,000 in value as determined through reference to public prices or other reasonable measures of fair market value when aggregated for the investigator and the investigator's spouse and dependent children; or constitute more than a five percent ownership interest in any single entity when aggregated in the same manner; or

(6) Salary, royalties or other payments that are not reasonably expected to exceed $10,000 per annum from any single entity when aggregated for the investigator and the investigator's spouse and dependent children.

However, the exclusions in paragraphs (1), (5), and (6) shall not apply if the compensation or transfer of an equity interest is conditioned upon a particular outcome in the PHS-funded research.

There are a number of additional public policy requirements with which applicants and grantees must comply. Refer to the NIDA research grant administrative office or the PHS Grants Policy Statement for additional information.

2. Government Use of Information

The NIDA International Program requests the information described in these instructions pursuant to its statutory authority in the Public Health Service Act as amended (42 USC 2421). Since lack of sufficient information may hinder NIDA's ability to review an application and to monitor the individual's performance, such information must be submitted if an application is to receive due consideration for an award.

The information you provide will be used only for the purpose of award, evaluation, and administration of the fellowship. Appropriate safeguards have been established to ensure that this information will be kept confidential.

3. Information and Actions Available to the Applicant

Applicants may request copies of records pertaining to their application from the NIDA International Program. Applicants are given the opportunity under established procedures to request that the records be amended if they believe they are inaccurate, untimely, incomplete, or irrelevant. Applicants or sponsors may request corrective action by NIDA if they believe that the process or substance of the review was seriously in error. Applicants or sponsors are encouraged to contact the NIDA International Program for advice and information.

4. Information Available to the General Public

The PHS makes information about awarded fellowships available to the public, including the field of training, the title of the project, the sponsoring institution, and the name of the awardee.

The Freedom of Information Act and the associated DHHS regulations require the release of certain information about grants upon request. Release does not depend upon the intended use of the information. Confidential financial material and material that would affect patent or other valuable rights are deleted. Although the sponsoring institution and the individual will be consulted about any such release, the final determination will be made by the PHS. The following materials, except as noted above, are generally available for release upon request: all funded fellowship applications; pending and funded noncompeting continuation applications; progress reports; and final report of any review or evaluation of the individual's performance conducted or caused to be conducted by the DHHS. Generally not available for release to the public are competing fellowship applications for which awards have not been made, and summary statements of findings and recommendations of review groups.

5. Recombinant DNA

The current NIH Guidelines for Research Involving Recombinant DNA Molecules and announcements of modifications and changes to the Guidelines are available from the Office of Biotechnology Activities, National Institutes of Health, Bethesda, Maryland 20892-7010, USA. Telephone: 1+301-496-9838. E-mail: oba@od.nih.gov.

All research involving recombinant DNA techniques that is supported by the DHHS must meet the requirements of these Guidelines. As defined by the 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) above.