

F33 GUIDE FOR REVIEWERS

Ruth L. Kirschstein National Research Service Awards (NRSA) Senior Fellowship Applications

EXECUTIVE SUMMARY

Ruth L. Kirschstein NRSA Senior Fellowship Applications (F33)

- Awarded to experienced scientists who wish to make major changes in the direction of their research careers or who wish to broaden their scientific background by acquiring new research capabilities.
- Enable individuals with at least seven years of research experience beyond the doctorate, and who have progressed to the stage of independent investigator, to take time from regular professional responsibilities for the purpose of receiving training to increase their scientific capabilities.
- In most cases, this award is used to support sabbatical experiences for established independent scientists.
- This program is not designed for postdoctoral level investigators seeking to prove their research potential prior to independence.
- The proposed study must be full-time and must include a level of research supervision and guidance appropriate to the applicant's background and career objectives.
- Senior fellowship support may be requested for a period of up to 2 years.

Visit the F33 program announcement PA-07-172 at <http://grants.nih.gov/grants/guide/pa-files/PA-07-172.html>.

INSTRUCTIONS FOR WRITTEN CRITIQUE AND PRELIMINARY SCORES

Please use the following guidelines when preparing written comments on F33 senior fellowship applications assigned to you for review.

Written Critiques

- The format of the critiques should follow the structured template provided for each mechanism, which can be downloaded from the Internet Assisted Review (IAR) site and found on the CD.
- Each core criterion and additional review criteria are represented in the reviewer template and should be commented on, listing the strengths and weaknesses of each in a bulleted form.
- The goal is to provide the maximum and most pertinent information in a concise manner.

- After considering all of the review criteria, briefly summarize the strengths and weaknesses of the application in the Summary and Recommendation section of the template.
- Assigned reviewers must upload critiques before entering a summary and recommendation score.
- Criterion scores should be entered in IAR before the review meeting.
- Assigned reviewers may submit criterion scores only after their critiques have been uploaded. At the SRO's discretion, discussants who are assigned to the application and SRG members who are not assigned to the application may submit criterion scores without critiques.
- The criterion scores may be changed during FINAL SCORING on your electronic or paper Voter/Scoring Sheet, or following the review meeting during the EDIT phase.
- Please do not write your criterion scores on the critique template.

Preliminary Scores

- Each core review criterion should be given a score using the nine-point rating scale in accordance with the new Enhanced Peer Review Criteria.
- The criterion scores for the applications should be entered in the meeting Internet Assisted Review (IAR) site in NIH Commons before the review meeting using the same page that is used for submitting the preliminary summary and recommendation score and critique.
- The criterion scores may be changed following the review meeting during the EDIT phase.
- In the READ phase of the meeting reviewers may submit their scores and critiques, but may not edit them. Core criterion scores can be submitted only after your critique had been uploaded into IAR.
- The criterion scores will appear in the summary statement as part of your critique.

Review Criteria

Candidate

Describe and evaluate the candidate's research competence through an assessment of academic background, pertinent awards and honors, research experience, professional training, publications, and references. Assess the candidate's continuing potential for important contributions to biomedical, behavioral, or clinical research.

Sponsor and Training Environment

Assess the quality of the training environment and the qualifications of the sponsor as a mentor for the proposed research training experience.

Research Training Proposal

Briefly summarize the research proposal and evaluate its strengths and weaknesses, considering the quality and appropriateness of the research design and methods, as well as the significance of the problem to be addressed as it relates to the candidate's career plans.

Training Potential

Evaluate the training value of the proposed fellowship experience as it relates to the candidate's training and career goals. Comment on whether it will enhance the candidate's capabilities as an independent researcher.

Additional Review Criteria

As applicable for the project proposed, reviewers are asked to consider the following additional items in the determination of scientific and technical merit, but not to give separate scores for these items.

Protections for Human Subjects

For research that involves human subjects but does not involve one of the six categories of research that are exempt under 45 CFR Part 46 (as described in [Human Subjects Protection and Inclusion](#)), reviewers are asked to evaluate the justification for involvement of human subjects and the proposed protections from research risk relating to their participation according to the following five review criteria: 1) risk to subjects, 2) adequacy of protection against risks, 3) potential benefits to the subjects and others, 4) importance of the knowledge to be gained, and 5) data and safety monitoring for clinical trials. If all of the criteria are adequately addressed, and there are no concerns, select "Acceptable Risks and/or Adequate Protections." A brief explanation is advisable. If one or more criteria are inadequately addressed, select "Unacceptable Risks and/or Inadequate Protections" and document the actual or potential issues that create the human subjects concern.

Also, if a clinical trial is proposed, evaluate the Data and Safety Monitoring Plan. (If the plan is absent, notify the SRO immediately to determine if the application should be withdrawn.) Indicate if the plan is "Acceptable" or "Unacceptable", and, if unacceptable, explain why it is unacceptable.

For research that involves human subjects and meets the criteria for one or more of the six categories of research that are exempt, evaluate: 1) the justification for the exemption, 2) human subjects involvement and characteristics, and 3) sources of materials. If the claimed exemption is not justified, indicate "Unacceptable", and, if unacceptable, explain why it is unacceptable.

If the project does not involve human subjects, select Not Applicable.

For additional information to assist you in making these determinations, please refer to http://grants.nih.gov/grants/peer/guidelines_general/Human_Subjects_Protection_and_Inclusion.pdf and http://grants.nih.gov/grants/peer/guidelines_general/Human_Subjects_Worksheet.pdf.

Inclusion of Women, Minorities and Children

When the proposed project involves clinical research, reviewers are asked to evaluate the proposed plans for inclusion of minorities and members of both genders, as well as the inclusion of children.

Public Law 103-43 requires that women and minorities must be included in all NIH-supported clinical research projects involving human subjects unless a clear and compelling rationale establishes that inclusion is inappropriate with respect to the health of the subjects or the purpose of the research. NIH requires that children (individuals under the age of 21) of all ages be involved in all human subjects research supported by the NIH unless there are scientific or ethical reasons for excluding them. Each project involving human subjects must be assigned a code using the categories "1" to "5" below. Category 5 for minority representation in the project means that only foreign subjects are in the study population (no U.S. subjects). If the study uses both then use codes 1 thru 4. Examine whether the minority and gender characteristics of the sample are scientifically acceptable, consistent with the aims of the project, and comply with NIH policy. For each category, determine if the proposed subject recruitment targets are "A" (acceptable) or "U" (unacceptable). If you rate the sample as "U", consider this feature a weakness in the research design and reflect it in the overall score. Explain the reasons for the recommended codes; this is particularly critical for any item coded "U".

For additional information to assist you in making these determinations, please refer to http://grants.nih.gov/grants/peer/guidelines_general/Human_Subjects_Protection_and_Inclusion.pdf and http://grants.nih.gov/grants/peer/guidelines_general/Human_Subjects_Worksheet.pdf.

<u>Gender Inclusion Code</u>	<u>Minority Inclusion Code</u>	<u>Children Inclusion Code</u>
G1 = Both genders	M1 = Minority and nonminority	C1 = Children and adults
G2 = Only women	M2 = Only minority	C2 = Only children
G3 = Only men	M3 = Only nonminority	C3 = No children included
G4 = Gender composition unknown	M4 = Minority composition unknown	C4 = Representation of children unknown
	M5 = Only foreign subjects	

Vertebrate Animals

Reviewers are asked to evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following five points: 1) proposed use of the animals, and species, strains, ages, sex, and numbers to be used; 2) justifications for the use of animals and for the appropriateness of the species and numbers proposed; 3) adequacy of veterinary care; 4) procedures for limiting discomfort, distress, pain and injury to that which is unavoidable in the conduct of scientifically sound research including the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices; and 5) methods of euthanasia and reason for selection if not consistent with the AVMA Guidelines on Euthanasia.

For additional information to assist you in determining if the Vertebrate Animals section is "Acceptable" or "Unacceptable", please refer to: <http://grants.nih.gov/grants/olaw/VASchecklist.pdf>.

Biohazards

Reviewers will assess whether materials or procedures proposed are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Resubmission Applications

When reviewing a Resubmission application (formerly called an amended application), evaluate the application as now presented, taking into consideration the responses to comments from the previous scientific review group and changes made to the project.

Summary and Recommendation

Remember that the F33 is a training award and not a research award. Major considerations in the review are the candidate's potential for a productive career, the candidate's need for the proposed training, and the degree to which the research training proposal, the sponsor, and the environment will satisfy those needs.

Assess the appropriateness of the years requested for accomplishing the research training and fully justifying any proposed change.

Briefly summarize the strengths and weaknesses of the application and recommend an overall level of merit, weighing each of the review criteria as you feel appropriate. An application does not need to be strong in all categories to receive a good rating.

Additional Review Considerations

Consideration of the elements below should not be factored into the overall recommendation or score.

Responsible Conduct of Research

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

Budget and Period of Support

The amount of the award for a senior fellowship will be determined individually at the time of award, based on the salary at the home institution.

Foreign Training

Evaluate the scientific advantages of the proposed training in a foreign country and compare it to relevant training opportunities available in this country. Comment on any special talents, resources, populations, or environmental conditions that are not readily available in the United States or that augment existing resources.

Resource Sharing Plans

Reviewers will comment on whether the following Resource Sharing Plan is reasonable.

Sharing Model Organisms

For many individual fellowships it is anticipated that plans for sharing model organisms would have already been reported to the NIH by the sponsor in his/her research application. When this has occurred, applicants will indicate so and include the appropriate grant number. However, if the development of a new model organism is anticipated, applicants will 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 (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-042.html>).

Unlike the NIH Data Sharing Policy, the submission of a model organism sharing plan is NOT subject to a cost threshold of \$500,000 or more in direct costs in any one year, and is expected to be included in all applications where the development of model organisms is anticipated.