

Definitions of Criteria and Considerations for T35 Critiques

The guidelines available here use language posted in the original funding opportunity announcement (FOA) and do not replace or modify the criteria established in the full announcement. If you have any questions, contact the Scientific Review Officer (SRO) in charge of the review panel. SRO contact information for your application can be found in [eRA Commons](#).

EXECUTIVE SUMMARY

- The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) invites new and competing continuation applications for its ongoing Short-Term Training for Medical Students program. This trans-NIDDK program provides short-term research support for medical students, or students in health professional schools, to expose them to career opportunities in research related to diabetes, obesity, endocrine disorders, metabolic diseases, nutritional disorders, digestive diseases, liver disease, kidney diseases, urologic diseases, and hematologic disorders.
- These Institutional National Research Service Award (NRSA) grants (T35) provide support for training experiences of eight to twelve consecutive weeks under the supervision of experienced researchers. This exposure to an active research environment may encourage students to pursue a biomedical or behavioral research career. In addition to the research experience, institutions are encouraged to provide seminars, research forums, guest lecturers, student presentations, special courses, or travel to a scientific meeting of interest to the student.

Overall Impact

Reviewers will provide an overall impact/priority score to reflect their assessment of the likelihood for the program to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

SCORED REVIEW CRITERIA

Reviewers will consider each of the five (5) scored review criteria and associated questions below in the determination of scientific merit, provide the basis for your assessment, and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact.

1. Training Program and Environment

- Are the objectives, design, direction, and quality of the proposed short-term research training program appropriate?
- Does the proposed program provide suitable training for the levels of trainees being proposed and the area of science to be supported by the program?
- Is the quality of proposed course contents and training experience appropriate for all levels of trainees to be included in the program?
- Does the program have access to candidates for short-term research training and the ability to recruit high quality, short-term trainees from the applicant institution or some other health-professional school?

- For competing continuation (renewal) applications, what is the success in attracting trainees back for multiple appointments?
- Are the research facilities and research environment conducive to preparing trainees for successful careers as biomedical scientists?
- Do the objectives, design and direction of the proposed research program ensure effective training?
- Is the proposed program of training likely to ensure that trainees will be prepared for successful and productive scientific careers?
- Do the courses, where relevant, and research training experiences address state- of-the-art science relevant to the aims of the program?
- Does the program provide training in inter- or multi-disciplinary research and/or provide training in state of the art or novel methodologies and techniques?
- Is a significant level of institutional commitment to the program evident?

2. Training Program Director/Principal Investigator (PD/PI)

- Does the Training PD/PI have the scientific background, expertise, and experience to provide strong leadership, direction, management, and administration to the proposed research training program?
- Does the Training PD/PI plan to commit sufficient time to the program to ensure its success?
- Is sufficient administrative and research training support provided for the program?
- For applications designating multiple PD/PIs:
 - is a strong justification provided that the multiple PD/PI leadership approach will benefit the training program and the trainees?
 - Is a strong and compelling leadership approach evident, including the designated roles and responsibilities, governance, and organizational structure consistent with and justified by the aims of the training program and with the complementary expertise of each of the Training PD/PIs?

3. Preceptors/Mentors

- Are sufficient numbers of experienced preceptors/mentors with appropriate expertise and funding available to support the number and level of trainees proposed in the application?
- Do the preceptors/mentors have strong records as researchers, including successful competition for research support in areas directly related to the proposed research training program?
- Do the preceptors/mentors have strong records of training pre-and/or postdoctorates?

4. Trainees

- Are the quality of the applicant pool and plans for the selection of individuals appointed to the short-term training program appropriate?
- Are the size and quality of the applicant pool adequate to support the program?

- Are the recruiting procedures, and trainee selection criteria, appropriate and well defined?
- Are there advertising plans or other effective strategies to recruit high-quality trainees?

5. Training Record

- How successful are the trainees (or for new applications, other past students/fellows in similar training) in completing the program?
- How productive are trainees (or for new applications other past students/fellows) in terms of research accomplishments and publications?
- How successful are trainees (or other past students/fellows) in obtaining further training appointments, fellowships, and career development awards?
- How successful are the trainees in achieving productive scientific careers, as evidenced by successful competition for research grants, receipt of honors or awards, high-impact publications, receipt of patents, promotion to scientific leadership positions, and/or other such measures of success?
- Does the program have a rigorous evaluation plan to review the quality and effectiveness of the training?
- Are effective mechanisms in place for obtaining feedback from current and former trainees and monitoring trainees' subsequent career development?
- Are plans presented to follow the careers of short-term trainees and to assess the effect of the training program on subsequent career choices?
- What is the success in attracting students back for multiple appointments? What is the effect of the short-term component on the overall training program?
- **For programs that provide research training to health-professional doctorates:** is there a record of retaining health professionals in research training or other research activities for at least two years?

Additional Review Criteria

As applicable for the project proposed, reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact/priority score, but will not give separate scores for these items.

Protections for Human Subjects

Generally not applicable.

Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Inclusion of Women, Minorities, and Children

Generally not applicable.

Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Vertebrate Animal

Generally not applicable.

Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Biohazards

Generally not applicable.

Reviewers should bring any concerns to the attention of the Scientific Review Officer.

Resubmission Applications

When reviewing a Resubmission application the committee will 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.

Renewal Applications

For Renewals, the committee also will consider the progress made in the last funding period, including progress on the **Recruitment and Retention Plan to Enhance Diversity**.

- **For renewal applications:**
 - Does the application describe the program's accomplishments over the past funding period(s);
 - Are there changes proposed that would improve/strengthen the training experience?

Revision

For Revisions, the committee will consider the appropriateness of the proposed expansion of the scope of the project. If the Revision application relates to a specific line of investigation presented in the original application that was not recommended for approval by the committee, then the committee will consider whether the responses to comments from the previous scientific review group are adequate and whether substantial changes are clearly evident

ADDITIONAL REVIEW CONSIDERATIONS

As applicable for the project proposed, reviewers will consider each of the following items, but will not give scores for these items, and should not consider them in providing an overall impact/priority score.

Recruitment and Retention Plan to Enhance Diversity

Peer reviewers will separately evaluate the recruitment and retention plan to enhance diversity after the overall score has been determined.

Reviewers will examine the strategies to be used in the recruitment and retention of individuals from underrepresented groups. The review panel's evaluation will be included in an administrative note in the summary statement.

Training in the Responsible Conduct of Research

Taking into account the specific characteristics of the training program, level of trainee experience, and the particular circumstances of the trainees, the reviewers will address the following questions.

1. Does the plan satisfactorily address the **format of instruction**, e.g. lectures, coursework and/or real-time discussion groups?
2. Do plans include a sufficiently broad selection of **subject matter**, such as conflict of interest, authorship, data management, human subjects and animal use, laboratory safety?
3. Do the plans adequately describe how **faculty will participate** in the instruction?
4. Does **the duration** and;
5. **frequency** of the plan meet the minimum requirements for RCR, i.e., eight contact hours of instruction every four years?

If this is a renewal, is there a report describing past instruction in the five components

described above?

Plans and past record will be rated as **ACCEPTABLE** or **UNACCEPTABLE**, and the summary statement will provide the consensus of the review committee.

Select Agent Research

Reviewers will assess the information provided in this section of the application, including 1) the Select Agent(s) to be used in the proposed research, 2) the registration status of all entities where Select Agent(s) will be used, 3) the procedures that will be used to monitor possession use and transfer of Select Agent(s), and 4) plans for appropriate biosafety, biocontainment, and security of the Select Agent(s). For more details, please see [Select Agents](#).

Budget and Period Support

The reasonableness of the proposed budget and the requested period of support will be assessed in relation to the proposed research training program **and the number of proposed trainees** at the requested levels. The overall impact/ priority score should not be affected by the evaluation of the budget.

Additional Comments to the Applicant

Reviewers may provide guidance to the applicant or recommend against resubmission without fundamental revision.