

# HEI S10 GUIDE FOR REVIEWERS

## High End Instrumentation (HEI) Grant Applications

### EXECUTIVE SUMMARY

High End Instrumentation Grant Program (S10)

- Encourages applications from groups of NIH-supported investigators to purchase a single major item of equipment to be used for biomedical research that costs at least \$600,000.
- Maximum award is \$8,000,000.
- Funds should be expended expeditiously, within 18 to 24 months from the date of award.
- Instruments in this category include, but are not limited to, structural and functional imaging systems, macromolecular NMR spectrometers, high-resolution mass spectrometers, cryoelectron microscopes and supercomputers.
- Reviewers should not evaluate the scientific merit of the research project components, because these have been previously peer reviewed.

Visit FOA at <http://grants.nih.gov/grants/guide/pa-files/PAR-09-118.html>.

### INSTRUCTIONS FOR WRITTEN CRITIQUE AND PRELIMINARY SCORES

Please use the following guidelines when preparing written comments on S10 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 Overall Impact (Overall Benefit) section of the template.
- Assigned reviewers must upload critiques before entering an overall impact/priority 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.
- 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 impact/priority 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.

## **Scored Review Criteria**

### ***Justification of Need***

Is the need for the instrument clearly and adequately justified? Is the equipment essential and appropriate? Will the instrument requested have a significant impact on biomedical/behavioral research and contribute to the advancement of human health?

### ***Technical Expertise***

Does the institution have the high-level technical expertise and access to the necessary infrastructure to make effective use of the requested equipment? How well qualified are the participating investigators to operate and maintain the instrument, conduct the projects, and evaluate the research results? How will new users be trained? Are collaborations in place between disciplinary and interdisciplinary scientists? How will biosafety procedures be implemented?

### ***Research Projects***

Will research with the requested instrument advance the knowledge and understanding of the proposed projects? How would the research project of each major user be enhanced? Will the results be disseminated broadly to enhance scientific and technological understanding? Are appropriate plans in place for record keeping and bioinformatics?

## ***Institutional Commitment***

What is the evidence of institutional commitment to support the instrument? Is institutional infrastructure (technical support, space, environment and utilities) available to support the instrument? Is there an institutional track record for making technology available? Is the financial plan for fully funding the purchase and long-term operation and maintenance of the instrument reasonable? Is there appropriate documentation (letters from institutional officials)?

## ***Administration***

Is the plan for the management and maintenance of the requested instrument appropriate? Are there plans for maximizing the effectiveness of the investment in instrumentation? Is there an advisory committee for oversight of the instrument including sharing arrangements? Is the membership of the advisory committee broadly based to oversee the use of the instrument for a wide range of biomedical investigators? How will research time be allocated among the projects? Are the sharing arrangements equitable? If needed, are the policies to manage human subject, animal or biohazardous materials projects adequate?

## **Additional Review Criteria**

### ***Resubmission Applications***

When reviewing a Resubmission application (formerly called an amended 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.

### ***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.

## **Overall Impact/Benefit**

Briefly summarize the strengths and weaknesses of the application. Assess the potential benefit of the instrument requested for the overall research community and have a significant impact on NIH-funded research. Provide comments on the overall need of the users which led you to your final recommendation and level of enthusiasm.

## **Additional Review Considerations**

### ***Budget and Period of Support***

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research. Base your budget recommendation on the total cost of upgrading or acquiring an appropriately equipped, but cost-effective, instrument. Recommend deletions or changes for inappropriate items. Do not concern yourself with the administrative cost floor or ceiling given in the program announcement. Please be specific in describing the requisite capabilities of an instrument appropriate to the needs of the investigators. This information should be valuable not only for NCCR staff in negotiating the terms of an award, but also to investigators who may have more limited experience than you with the requested instrumentation.