

FAX TO 1000

## Review Criteria for Different Grant Mechanisms

**The F32 Mechanism:** The F32 Award is the National Research Service Award Postdoctoral Fellowship grant. The goal of the review is to identify those candidates who have the highest potential to develop in successful, independent scientists upon the completion of their training. It is important for reviewers to remember that the F32 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. The major elements of the review are: Candidate, Sponsor and Training Environment, Research Proposal, and Training potential. You can consider extent and level of previous education, including the mentor and the institution; dissertation topic; previous postdoctoral or clinical experience; evidence of commitment to a career in research; awards, honors, publications, professional training; and reference letters (**protecting the confidentiality of the references**).

**The R03 Mechanism:** These are Small (Pilot) Research Project Grants. For the applications we are reviewing, the total requested project period for an application submitted in response to this PA may not exceed three years or \$50,000 annual direct costs.

The review criteria for R03s are the same as those for R01s and R21s. Bearing in mind that R03s are pilot grant projects so the scope of work is much smaller than an R01 (and usually R21s), preliminary data as evidence of feasibility are not required (the purpose of these grants is usually to generate preliminary data). However, the PI is responsible for developing a sound research plan. Major considerations in the evaluation are significance (is the problem important), approach (are concepts and methods appropriate), innovation (are concepts or methods novel), investigator (is experience level appropriate), and environment (are scientific surroundings supportive).

**Note:** R21s and R03s are only submitted in response to Program Announcements (PAs). However, it is important to keep in mind that responsiveness a particular PA is not an additional review criteria; PIs do not get brownie points (or minus points) for being responsive, and responsiveness to the PA should not be considered as part of the significance criteria or any of the other review criteria. You can make comments about responsiveness to the PA (only if you want to) in an administrative note that should not affect your score. You should make your own independent assessment of the significance of their proposal regardless of how responsive they have been to the PA.

**The R21 Mechanism:** These are Exploratory/ Developmental grants and are for pilot projects or feasibility studies to support creative, novel, high risk/high payoff research that may produce innovative advances in science. Some ideas may not be developed sufficiently to compete as a standard R01. Generally, these projects are in response to a specific program announcement or RFA and may have limitations in direct costs and time.

Review criteria for R21s - because this grant mechanism is designed to support innovative ideas, preliminary data as evidence of feasibility are not required. However, the PI is responsible for developing a sound research plan. Major considerations in the evaluation are significance (is the problem important), approach (are concepts and methods appropriate), innovation (are concepts or methods novel), investigator (is experience level appropriate), and environment (are scientific surroundings supportive).

**The R15 Mechanism:** The AREA (Academic Research Enhancement Award) is for the support of small-scale health-related research projects conducted by faculty in institutions that are not research intensive. These grants create a research opportunity for scientists and institutions that would otherwise be unlikely to participate in NIH programs. The objectives are to strengthen the research environment at institutions that are not research intensive; expose students to research; provide support for meritorious research. Major considerations in the evaluation are significance (is the problem important), approach (are concepts and methods appropriate), innovation (are concepts or methods novel), investigator (is experience level appropriate), and environment (are scientific surroundings supportive).

**Note:** The R15 has the following supplemental instructions: Budgets are to be submitted in one to six modules of \$25,000 for up to 36 months. Additional biographical information is requested regarding the experience of the principal investigator in supervising students in research. Specific information about the applicant institution relative to the goals of the AREA program is to be provided along with the usual information on the "Resources" page.

**The R01 Mechanism:** There are five criteria by which the scientific and technical merit of the R01 application is to be judged: 1) Significance; 2) Approach; 3) Innovation; 4) Investigator; and 5) Environment.

Discussion of the strengths and weaknesses of the application should be in the context of these five criteria. One overall score for scientific and technical merit is to be given, and you alone will determine what weight should be afforded each of these in deciding upon an overall score. The focus of the discussion should be on the overall impact of the proposed project on the field, using these criteria as the basis for evaluation and as an organizational framework. The discussion should be focused on broad issues rather than detail:

- \* Will the proposed research make a difference to the field?
- \* Can the investigators do the work proposed?
- \* How significant is the project?
- \* Will it advance knowledge in the field and, if so, in what way?

There have been occasions when study section members have seemed to focus so much on the technical correctness of the scientific approach that the other dimensions have been overlooked. The NIH review criteria are an attempt to remedy this, to encourage reviewers to see the forest as well as the trees.

**New Investigator R01:** A new investigator is one who has not previously served as such on any Public Health Service-supported research project other than a small grant (the R03), an Academic Research Enhancement Award (the R15), an exploratory/developmental grant (the R21), or certain research career awards directed principally to physicians, dentists, or veterinarians at the beginning of their research career (these include the K01, K08, K22, and K23). Current or past recipients of Independent Scientist and other non-mentored career awards (the K02 and K04) are not considered new investigators.

We will be considering applications with new investigators. For these applications, reviewers should note the following changes regarding review criteria for R01s when the principal investigator is new. Regarding approach, more emphasis should be placed on demonstrating that the techniques and approaches are feasible, rather than on preliminary results. Regarding the investigator, more emphasis should be placed on their training and their research potential, rather than on their track record and number of publications. When evaluating the environment, reviewers should note whether there is some evidence of institutional commitment in terms of space and time to perform the research.