NIH Grant Watch

Enhancing Peer Review

On top of the 20,894 applications for Challenge Grants in Health and Science Research that the scientific community scrambled to submit in April, the National Institutes of Health (NIH) reviewed 16,312 research grants, 2077 competitive revisions, and 2697 Grand Opportunity grants this summer. In 2008, roughly 77,000 total applications were received and reviewed by 6000 reviewers in 1600 meetings. By the end of 2009, 115,000 grants are expected, requiring 40,000 reviewers to commit to review the incoming applications in 18,000 different meetings. The NIH, however, prepared to meet the substantial challenge of reviewing all of those grants even before the extent of the strain on the system was realized.

Over the past year, the NIH scrutinized its own peer-review processes to diagnose the most significant difficulties it faced in supporting scientific research and to propose enhancements in those areas. They also examined the peer-review practices of other large domestic and international funding agencies and conducted peer-review experiments in each of the NIH institutes and centers. The data collected, combined with feedback from the scientific community (available at <http://enhancing-peer-review.nih.gov>), led to the identification of seven recommended challenges and goals for improvement in these areas:

- Challenge 1: Reducing administrative burden on applicants, reviewers, and NIH staff
- Challenge 2: Enhancing the rating system
- Challenge 3: Enhancing review and reviewer quality
- Challenge 4: Optimizing support at different career stages
- Challenge 5: Optimizing support for different types of science
- Challenge 6: Reducing stress on the support system of science
- Challenge 7: Meeting the need for continuous review of NIH peer review

Implementation of the improvements began just in time for the influx of Challenge Grants and will continue gradually over the next several months. The grant applicants will see improvements that include straightforward feedback on their applications through an upgraded rating system and a restructuring of the application to reflect the rating criteria. The new rating system will include explicit criteria, and scores for each category will be reported to all applicants, even those falling below the previous "un-scored" threshold. Instead, there will be a "not recommended for resubmission" category to prevent time wasted on aims that do not meet the goals of the funding institution or carry the appropriate potential impact, or that are impractical.

The application itself will be formatted around the review elements and will be shortened to reduce time spent away from the lab while applying for funding. Inclusion of standard methodological details will decrease, allowing for focus on the significance and uniqueness of the proposed study. Sections created for the specific explanation of how the proposal meets the rating criteria aim to improve efficiency in writing and in review and rating. All of these enhancements will be subject to ongoing review by a committee of scientists who are asked to serve in study sections, so that the NIH can evaluate their effectiveness in meeting their goals.

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