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New Year Brings Changes to Peer Review



In the next few months, NIH will begin to implement a number of changes to the peer review process that apply to most applications submitted for the January 2009 deadline and beyond. Reviewers will begin to experience these changes when they assess applications for their May-July meetings.

What's changing? The review and scoring process, clustering of New Investigator applications and the number of resubmitted (amended) applications that can be submitted.

Plans for shorter applications and other application changes won't go live until later. Reviewers will first see these applications in the May-July meetings in 2010.

Changes to the review and scoring process

A new system of reviewing and scoring applications is designed to increase reliability, consistency and transparency.

Scores on a 9-point rating scale: The new scoring system is based on a 9-point rating scale using only integers (1 for exceptional; 9 for poor). Before the review meeting, all assigned reviewers will give a preliminary impact score to each of their assigned applications. After discussing an application, each eligible committee member will give a final impact score, reflecting his/her evaluation of the overall impact the project is likely to have on the research field. The overall impact score for each application will be the average of all the final impact scores, multiplied by 10 (overall impact scores will range from 10 - 90).

Enhanced review criteria with individual scoring: Each assigned reviewer will consider the five core review criteria—as well as the use of human subjects, vertebrate animals, etc.—in determining the preliminary impact score. The 9-point rating scale described above will be used to rate each criterion (significance, investigator(s), innovation, approach, and environment). An application does not need to be strong in all five criteria to be judged as likely to have major

scientific impact. All summary statements will include scores given by the assigned reviewers for each criterion regardless of whether the full committee discussed the applications. However, applicants whose applications were not discussed will not receive an overall impact score.

Formatted Reviewer Critiques: Reviewers will submit written critiques via new electronic templates that will prompt for strengths and weaknesses for each criterion. Applicants will be able to easily discern the scores and comments for each criterion in the summary statement. There will be specific templates for different categories of applications (research grants, career development awards, SBIR/STTR applications, etc.).

Clustering of New Investigators

When possible, R01 grant applications from applicants who have not successfully competed for a significant research grant will be clustered in the review process. For some reviewers, clustering these "New Investigator" applications will not be a new practice, as some study sections are already doing this. A new subset of the applications qualifying for New Investigator status include those submitted by "Early Stage Investigators," who are within ten years of completing their terminal research degree or within ten years of completing their medical residency. The career stage of these R01 applicants will be considered in the review but mostly in the award process to help accelerate the transition of investigators to independence. NIH plans to support applications from New Investigators at rates comparable to those of new applications submitted by established investigators

Resubmitting Applications

To rebalance success rates and improve system efficiency, new applications and competing renewal applications that are received for fiscal year 2010 and beyond will only be allowed a single resubmission. Because there are different due dates for different categories of applications, and because of the continuous submission policy for members of study sections, there is no single, overall cut-off date. It may be helpful to consider R01 applications as an example. The last R01 applications eligible for potential A2 submissions were those submitted for the Oct. 5, 2008/Nov. 5, 2008 dates (or earlier) for non-AIDS research or for Jan. 7, 2009 for AIDS research. For chartered study section members taking advantage of the continuous submission option, the cut-off for assignment was Dec. 16 for non-AIDS research and Feb 7 for AIDS research.

NIH is planning an evaluation of the cumulative effect of all these changes. The evaluation will involve a large survey of NIH internal and external constituents including applicants, reviewers, employees, etc. In addition to the online survey, the evaluation will use focus groups, data mining, and other modes of information. Baseline data collection begins this March. For more details on these and other developments, see the Enhancing Peer Review Web site at http://enhancing-peer-review.nih.gov/.

Getting Reviewers Ready for What's Next

The first thing CSR reviewers should know is that the changes in scoring and review will take effect in the review round that begins in May. We are using this winter and early spring to prepare. Our Review Officers have been given in-depth briefings so they can provide needed guidance.

In addition, CSR Director Toni Scarpa or a member of his management team will brief every CSR review group beginning in May.

Getting Chairs Ready

CSR will also help its new study section chairs get up to speed through regional chair orientation meetings. The new chairs named in 2008 will take part in winter and early spring meetings. In January, 100 chairs will gather in five cities: San Francisco, San Diego, Chicago, Nashville and Philadelphia.

Reviewers Hold the Key: "As important as the peer review changes are, they will not in and of themselves ensure NIH funds the best research," Scarpa said. "As always, the success of NIH peer review will depend on the great efforts of our reviewers and especially chairs. NIH and this country owe them a lot."

New Reviewer Reimbursement Process



NIH is implementing a new, simplified and secure process for you to receive reimbursement and honoraria for your valued participation in NIH peer review meetings. Starting January 17, you are asked to log into the eRA Commons and update/verify your residential address, phone number and email in your personal profile. You then should follow the link to the Federal Secure Payee Reimbursement System and enter your banking information and social security number.

No more SPAM: Reviewers will no longer be required to use the U.S. Treasury Central Contract Registration (CCR) system or secure a DUNS number. This caused problems and complaints in the past, particularly when it led to reviewers being spammed by third parties. If you have a CCR account, you may cancel it if you wish to stop receiving automatic reminders from CCR to renew your registration.

Get more information at http://grants.nih.gov/grants/peer/peer.htm.

New Reviewers Can Lighten Load with Extended Terms

Members of chartered study sections appointed after Jan. 1, 2009, now can choose four- or sixyear membership terms. The new six-year terms allow them to spread their participation over more time to make it easier for them to juggle busy schedules. These reviewers only participate in two meetings a year instead of three, as current members do on four-year terms. We note that it is not possible for current members to convert to a six-year term. NIH sought this change after data collected for the Enhancing NIH Peer Review initiative suggested that reviewers would be more interested in serving on peer review groups if they could serve less frequently, over a longer period of time.

CSR Updates Study Section Descriptions

CSR has updated and enhanced its study section descriptions/guidelines. New reviewers sometimes use them to learn about their study sections. Applicants also regularly use these descriptions to request CSR study sections that might best review their applications.

View the New Descriptions: http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescriptionNew/



We did this to make our chartered study section descriptions more transparent and reflective of the types of applications actually reviewed by CSR study sections. The updated descriptions were designed to be more user-friendly – particularly new applicants. The changes apply only to CSR's chartered study sections, and not to any others organized by CSR or other NIH institutes or centers.

We enhanced our descriptions in response to requests from study section chairs and others in the scientific community

who participated in evaluations of CSR's review groups. CSR is working to produce new descriptions for its fellowship and small business review groups.

Read NIH Guide Notice: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-027.html

Deans Called to Help Recruit Reviewers

CSR continues to encourage university research deans and scientific societies to nominate volunteer reviewers to be included in the CSR National Registry of Volunteer Reviewers. Our Scientific Review Officers use it to find highly qualified reviewers. The registry has grown to include about 4,000 potential reviewers.

How to Get in the Reviewer Registry: Deans and society leaders are invited to e-mail RecruitReviewers@csr.nih.gov to find out how they should submit names of potential reviewers. Qualified volunteers typically have substantial and broad independent research experience, are recipients of major peer-reviewed grants, understand the review process and are willing to consider serving.

A New Flyer to Recruit Reviewers is now on the Web to help inspire scientists to volunteer. It lists the top seven reasons study section chairs give for being a reviewer. We encourage deans and societies to download and distribute the flyer, which includes quotes from the chairs. The "Consider Becoming a Reviewer" flyer is posted in pdf on CSR's Publications Web page: http://cms.csr.nih.gov/AboutCSR/Publications/OutreachPublications/.

CSR Takes Peer Review Worldwide



Though peer review to fund science is an American invention that started more than a century ago, its impact on biomedical research worldwide is powerful. Allocating funds through merit still offers the best hope for medical breakthroughs that can improve health for everyone on the planet.

CSR Director Toni Scarpa has been taking that message beyond U.S. borders to bolster the impact of peer review in other countries—Italy, Sweden, Canada, Australia, to name a few. (In the photo, Toni Scarpa (r) briefs the Italian

Undersecretary for Health Ferruccio Fazio.)

"It is important to maximize funds for biomedical research," Scarpa said. "After all, biomedical research is universal and whatever advances or discoveries are made don't stay within the country. They are adopted and used by different countries and communities."

Although more countries are adopting peer review as a means of allocating funds, most of the funds in many countries are allocated using government appropriations and entitlements. For example, Scarpa said that in many countries, the professors doing biomedical research have already been paid 100 percent by their federal governments, whether they are competitive or not.

"What distinguishes this country is that the lion's share of money NIH spends on extramural research is based on peer review and distributed exclusively on merit," he said. "So it is vital to help different countries recognize that distributing more funds through peer review would not only benefit their respective countries, but the health of the people on this planet."

Recently, Scarpa traveled to Italy to help revolutionize how its government funds biomedical research. His work had a big impact on helping Italy adopt a competitive peer review system that more closely parallels NIH's system. The U.S. Department of Health and Human Services has asked CSR to help get things started by reviewing about 1,500 applications for the Italian government in 2009.

"We are doing what we can to inform different countries of the best practices and various modalities that we are using that have worked or not worked, with the goal of encouraging more funding of merit-based biomedical research," Scarpa said. "We are here to help make that happen."

CSR's outreach has paid off in more ways than one. Other countries have methods that helped NIH improve its peer reviews. NIH is considering adopting the Canadian practice of reviewing applications in order of their preliminary scores. Doing so could save a significant amount of time that is now devoted to determining which applications are not discussed and calibrating scores at the end of the meeting.

CSR Nets Impressive Scientific Staff

CSR recruited an impressive crop of scientific staff members and promoted two current members in recent months. They are on the frontlines of ensuring the best review for grant applications. Meet our new staff members by accessing their biographies online at the following Web site: http://cms.csr.nih.gov/AboutCSR/MeetCSRStaff.htm.

We are proud to have the following new members on our staff:

- **Dr. Katherine Bent** of Veterans Affairs will be the new chief of the Healthcare, Delivery and Methodologies Integrated Review Group (IRG). She comes to CSR after having served Veterans Affairs as the Scientific Program Manager in the Office of Research and Development.
- **Dr. Cathleen Cooper** was named the new chief of the Oncology 1 Basic Translational Integrated Review Group. Previously, Cooper was the Scientific Review Officer (SRO) for CSR's Transplantation, Tolerance and Tumor Immunology IRG.
- **Dr. Ross Shonat** will oversee the newly formed Interdisciplinary, Molecular Sciences and Training IRG. He was the SRO for CSR's Bioengineering Sciences and Technology IRG.
- **Dr. Guangyong Ji** oversees the Drug Discovery and Mechanisms of Antimicrobial Resistance Study Section. Before coming to CSR in May, he was an associate professor in the biology department at The Catholic University in Washington DC.

- **Dr. Malaya Chatterjee** is the SRO for CSR's Clinical Oncology Study Section. Previously, Chatterjee, who started at CSR in June, was a tenured professor at the University of Cincinnati's Internal Medicine Department.
- **Dr. Nywana Sizemore** oversees the Cancer Etiology Study Section. Before coming to CSR in August, Sizemore was an assistant professor in the Department of Cancer Biology at the Cleveland Clinic.
- **Dr. Melissa Gerald** is the SRO for CSR's Biobehavioral Regulation, Learning, and Ethology Study Section. Gerald started at CSR in August, after serving as an associate professor at the Department of Internal Medicine at the University of Puerto Rico.
- **Dr. Laurent Taupenot** is the SRO for CSR's Cellular and Molecular Biology of Neurodegeneration Study Section. He joined CSR in August, after working as an associate professor of medicine at the University of California, San Diego.
- **Dr. Eugene Carstea** oversees two study sections as the SRO for CSR's Molecular, Cellular and Developmental Neurobiological Small Business applications, and Biophysical and Physiological Neuroscience Fellowship applications. Before joining CSR in September, Carstea, a former NIH intramural scientist, was the associate director of discovery at Vanda Pharmaceuticals.

For information about jobs recruitment at CSR, please go to CSR's employment Web page: http://cms.csr.nih.gov/AboutCSR/Employment/GetaJobasaCSRSRA.htm.

Editorial Board Reviews May Help Boost Innovation

NIH is using an innovative peer review format—editorial board reviews—to help identify research that has the potential to transform biomedicine. Two groups of reviewers play key roles: specialized experts assess the applications for scientific merit and submit written critiques; experienced reviewers with a broad understanding of the science further critique the applications. This second group functions as the "editorial board" and meets face-to-face or electronically to discuss the initial assessments and score the applications by focusing on their overall significance and impact.

CSR is using this type of review to assess new Transformative R01 applications in an effort to support extraordinarily innovative, high-risk, original or unconventional research projects that hold promise to revolutionize a broad area of biomedical or behavioral research: http://nihroadmap.nih.gov/T-R01/. Editorial board reviewers will conduct an initial review and select a reasonable number for further review.

CSR initiated an evaluation of the quality and effectiveness of editorial board reviews in spring 2008. The pilot involved a range of SBIR (Small Business Innovation Research) and Bioengineering Research Partnership applications. Preliminary data show that editorial board reviews may improve the quality of reviews for complex, multidisciplinary applications.

A majority of reviewers, some 64 percent, said they would choose this type of review for their own applications; of the experts who submitted written critiques considered by the editorial boards, about 38 percent said they would prefer these reviews for their own applications.