Welcome!

Meet the NIH Peer Review Experts Webinar

Have a question today?
Send it to askexperts@csr.nih.gov
The Review of Your NIH Grant Application Begins Here

Richard Nakamura, Ph.D.
Director
National Institutes of Health
Your Application Could Be Funded by One of 24 NIH Institutes or Centers

- Office of the Director
  - National Institute on Aging
  - National Institute on Alcohol Abuse and Alcoholism
  - National Institute of Allergy and Infectious Diseases
  - National Institute of Arthritis and Musculoskeletal and Skin Diseases
  - National Cancer Institute
  - Eunice Kennedy Shriver National Institute of Child Health and Human Development
  - National Institute on Deafness and Other Communication Disorders
  - National Institute of Dental and Craniofacial Research
  - National Institute of Diabetes and Digestive and Kidney Diseases
  - National Institute on Drug Abuse
  - National Institute of Environmental Health Sciences
  - National Eye Institute
  - National Institute of General Medical Sciences
  - National Heart, Lung, and Blood Institute
  - National Human Genome Research Institute
  - National Institute of Mental Health
  - National Institute of Neurological Disorders and Stroke
  - National Institute of Nursing Research
  - National Institute of Allergy and Infectious Diseases
  - John E. Fogarty International Center
  - National Center for Advancing Translational Research
  - National Library of Medicine
  - National Institute on Minority Health and Health Disparities
  - National Institute of Biomedical Imaging and Bioengineering
  - National Center for Complementary and Alternative Medicine
  - Clinical Center
  - Center for Information Technology
  - Center for Scientific Review
NIH Extramural & Intramural Funding
FY 2012 Enacted: $30.9 Billion

Spending at NIH
$5.2 B
17%

Spending Outside NIH
$25.7 B
83%

- $3.4 B Intramural Research
- $1.5 B Research Management & Support
- $0.3 B Buildings and Facilities, Other

- Supports over 300,000 Scientists & Research Personnel
- Supports over 2,500 Institutions
Performance History

NIH-Supported Nobel Prize Winners: 144

2013 Winners

Physiology or Medicine

James Rothman
Randy Schekman
Thomas Südhof

Chemistry

Martin Karplus
Michael Levitt
Arieh Warshel
The Benefits of Biomedical and Public Health Advances

U.S. Life Expectancy

Why Has NIH Been So Successful?

Peer Review

- Focus is on funding ideas not institutions.
- Ideas spring from local researchers.
- Researchers must compete – like entrepreneurs – for funding.
- Scientific experts do the judging.
- Institutions receive funds only when their scientists submit successful applications.
- NIH program and review staff are separated.
- Scientists manage the peer review process.
NIH Peer Review System for Grant Applications

First Level of Review
Scientific Review Group
(Study Section)

Second Level of Review
NIH Institute/Center Council
Review Process for a Research Grant

Research Grant Application

School or Other Research Center

National Institutes of Health

Center for Scientific Review

Assigns to IC & IRG/Study Section

Study Section

Reviews for Scientific Merit

Institute

Evaluates for Relevance

Advisory Councils and Boards

Recommends Action

Institute Director

Takes Final Action

Initiates Research Idea

Submits Application

Allocates Funds

Conducts Research
The Gateway for NIH Grant Applications

The Center for Scientific Review

- Receives all NIH applications
- Refers them to NIH Institutes/Centers and to scientific review groups
- Reviews for scientific merit about 70% of all NIH applications
CSR Peer Review – Fiscal Year 2013

- 84,000 applications received
- 17,000 reviewers
- 236 Scientific Review Officers
- 1,500 review meetings
CSR Mission

To see that NIH grant applications receive fair, independent, expert, and timely reviews – free from inappropriate influences – so NIH can fund the most promising research.
We Want Your Applications!
What’s Next?

• What You Need to Know About Application Receipt and Referral
• How Your Application Is Reviewed
• Key Things to Know About the Academic Research Enhancement Award (AREA) Program
• Jumpstart Your Career with CSR’s Early Career Review Program
• Q&As
Have a Question During Today’s Seminar?

Send it to askexperts@csr.nih.gov

We will answer questions at the end of the program
What You Need to Know about Application Receipt and Referral

Cathleen Cooper, Ph.D.
Director, Division of Receipt and Referral (DRR)
Electronic Application Process (Overview)

1. Prepare to Apply & Register
   - Register with Grants.gov & eRA Commons

2. Find Opportunity
   - Submit in response to Funding Opportunity Announcement (FOA)

3. Prepare Application
   - Follow Application Guide & Instructions

4. Submit, Track & View
   - Submit via your organizational representative
   - Use eRA Commons to view & track
DRR is at the End of the Grants.gov Pipeline

Incoming applications for all of NIH + other HHS Agencies

Remaining applications distributed among CSR IRGs

Problems? Policy Compliance?
What does DRR do?

- Determines if application is
  - on time
  - formatted correctly
  - complete
- Makes Institute Assignment for funding consideration
- Makes Study Section Assignment for review
Help Your Application Get to the Right Study Section

http://www.csr.nih.gov
Help Your Application Get to the Right Institute

http://projectreporter.nih.gov/reporter.cfm
Find a Funding Opportunity (FOA)

http://grants1.nih.gov/searchGuide/search_guide.cfm
Cover Letter

The cover letter should be used for a number of important purposes:

• Suggest Institute/Center assignment
• Suggest review assignment
• Identify individuals in potential conflict and explain why
• Identify areas of expertise needed to evaluate the application
• Discuss any special situations

It is NOT appropriate to use the cover letter to suggest specific reviewers.
Sample Cover Letter

Please assign this Phase I SBIR “Drugs for Retinoblastoma Treatment” (RFA-CS-00-000) to the following:

Institutes/Centers
  National Cancer Institute
  National Eye Institute
Scientific Review Group
  Oncology Translational and Clinical IRG

Please do not assign this application to the following:
  Scientific Review Group
  Biological Chemistry and Macromolecular Biophysics

This study focuses on a new in vitro model for testing drugs for treatment of retinoblastoma, not the synthesis of new chemotherapeutic agents.
Keep Track of Your Application

• AORs submit applications
• PD/PIs responsible for accuracy of submission
• Do not wait for e-mails; proactively check eRA Commons
• If you cannot see your application in eRA Commons, neither can we!

Remember

It is your career and your livelihood on the line
Do not make any assumptions!
How NOT to submit a Late Application

START EARLY!

- Application must be accepted **TWICE**: Grants.gov and NIH

Check eRA Commons for your submitted application
(e-mails are sent but can be caught in SPAM filters)

- High volume at deadlines slows processing/validation time
- On time application = submitted error-free by 5 PM local time on due date
- **Errors** cause rejection – **Warnings** are error-free and accepted
- **No error correction window that extends deadline**
A Window to Your Application: eRA Commons

*eRA Commons* is an online interface where a grant applicant can:

- Check submitted grant application for errors and warnings and view final image
- Track review assignment, view review outcomes (score, summary statements), find contact info
- Update Personal Profile to ensure Early Stage Investigator eligibility is in place
- Submit pre-award information (just in time)
- View Notice of Award and other key documents

And much more!

[https://commons.era.nih.gov/commons/](https://commons.era.nih.gov/commons/)
Have a Question During Today’s Seminar?

Send it to askexperts@csr.nih.gov

We will answer questions at the end of the program
Your SRO is a doctoral-level scientist with expertise relevant to your field who manages the overall peer review of your application.
Your SRO Assigns at Least Three Reviewers to Your Application
What Your SRO Looks for When Recruiting Reviewers

- Demonstrated scientific expertise/research support
- Doctoral degree or equivalent
- Mature judgment
- Work effectively in a group context
- Breadth of perspective
- Impartiality
- Diversity
- Geographic distribution
Your SRO Convenes the Study Section Meeting
At the Meeting: Application Discussion

- Any member in conflict with an application leaves the room
- Reviewer 1 introduces the application and presents critique
- Reviewers 2 and 3 highlight new issues and areas that significantly impact scores
- All eligible members are invited to join the discussion and then vote on the final overall impact score
Discussions Focus on the Best Applications

- Reviewers typically discuss the top half of the applications
- The panel will discuss any application a reviewer wants to discuss
New Investigator or Early Stage Investigator Applications

- **R01 grant applications**: Your status is formally considered and NIH is committed to funding a significant number of these applications.

- **Other grant applications**: Your career stage is factored into the Investigator critique.

NIH must have correct info on your career stage
Main Review Criteria

• Overall Impact
  - Assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved

• Core Review Criteria
Core Review Criteria

- Significance
Core Review Criteria

- Significance
- Investigator(s)
Core Review Criteria

• Significance
• Investigator(s)
• Innovation
Core Review Criteria

• Significance
• Investigator(s)
• Innovation
• Approach
Core Review Criteria

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment
Additional Criteria Contribute to Overall Impact Scores

- Protections for human subjects
- Inclusions of women, minorities and children
- Appropriate use of vertebrate animals
- Management of biohazards
# 9-Point Scoring Scale

<table>
<thead>
<tr>
<th>Impact</th>
<th>Score</th>
<th>Descriptor</th>
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<tbody>
<tr>
<td>High Impact</td>
<td>1</td>
<td>Exceptional</td>
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<tr>
<td></td>
<td>2</td>
<td>Outstanding</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Excellent</td>
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<tr>
<td>Medium Impact</td>
<td>4</td>
<td>Very Good</td>
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<tr>
<td></td>
<td>5</td>
<td>Good</td>
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<tr>
<td></td>
<td>6</td>
<td>Satisfactory</td>
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<tr>
<td>Low Impact</td>
<td>7</td>
<td>Fair</td>
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<tr>
<td></td>
<td>8</td>
<td>Marginal</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Poor</td>
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</table>
Scoring

• Each panel member provides an overall impact score.

Range of Scores

• After discussion, assigned reviewers state final Overall Impact Scores, defining the score range.

• Panel members may vote outside this range although any intent to do so must be declared.
Other Considerations that Do Not Affect Overall Impact Scores

- Resource Sharing Plans:
  - Data
  - Model Organisms
  - Genome Wide Association Studies
- Foreign Organizations
- Select Agents
- Budget
Your Application Could Be Reviewed Electronically

Electronic reviews are used to facilitate reviewer participation

**Electronic Review Platforms**
- Telephone Assisted Meetings
- Internet Assisted Meetings
- Video Assisted Meetings
Your SRO

- Prepares summary statements
- Provides information to NIH Institutes and Centers
Your Summary Statement

- Scores for each review criterion
- Critiques from assigned reviewers
- Administrative notes if any

If your application is discussed, you also will receive:

- An overall impact/priority score and percentile ranking
- A summary of review discussion
- Budget recommendations
Check the Status of Your Application in NIH Commons

### Status Information

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<th>General Grant Information</th>
<th>Other Relevant Documents</th>
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<td>(0 documents)</td>
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<td>Application Source:</td>
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<th>Status History</th>
<th>Institute or Center Assignment</th>
<th>Advisory Council (AC) Information</th>
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<td>Application entered into system</td>
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<td>Meeting Time:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Study Roster:</td>
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</table>

NIH Center for Scientific Review
When Preparing an Application

- Read instructions
- Never assume that reviewers will know what you mean
- Refer to pertinent literature
- State rationale of proposed investigation
- Include well-designed tables and figures
- Present an organized, lucid write-up
- Obtain pre-review from faculty at your institution

**NIH Grant Writing Tips**

[http://grants.nih.gov/grants/grant_tips.htm](http://grants.nih.gov/grants/grant_tips.htm)
What Reviewers Look for in Applications

- Impact
- Exciting ideas
- Clarity
- Realistic aims and timelines -- Don’t be overly ambitious
- Brevity with things that everybody knows
- Noted limitations of the study
- A clean, well-written application
Key NIH Review and Grants Web Sites

NIH Center for Scientific Review
http://www.csr.nih.gov

NIH Office of Extramural Research
http://grants.nih.gov/
Who Can Answer Your Questions?

Before You Submit Your Application
- A Program Officer at an NIH Institute or Center
- Scientific Review Officer

After You Submit
- Your Scientific Review Officer

After Your Review
- Your Assigned Program Officer
Key Things to Know About the Academic Research Enhancement Award (AREA) Program

Lisa Steele, Ph.D.
Scientific Review Officer
What Are AREA/R15 Grants?

Small-scale research projects by faculty and students in educational institutions that have not been major recipients of NIH research grant funds

With the Goals to:
• Support meritorious research
• Expose students to research
• Strengthen the research environment of the institution
Key Features of R15 Grants

- Project period is limited up to 3 years
- Direct cost limited to $300,000 over entire project period
- Multiple PIs are allowed, if all eligible
- Research Strategy limited to 12 pages
- Grants are renewable
- Preliminary data not required but can be provided
- Institution has not been major recipient of NIH support
R15 Application Logistics

- Funded through the R15 grant mechanism
  - Program Announcement (PA) Number: PA-13-313
- Receipt dates
  - Standard application deadlines: February 25, June 25, and October 25
  - AIDS-related research deadlines: May 7, September 7, and January 7
- All NIH ICs participate in the AREA program except FIC, NIMHD, and NCATS
Unique R15 Application Instructions

- Additions to PI Biosketch detail experience with student researchers
- Additions to Facilities address students & institution
Review of R15 Grant Applications

To help advance research at R15 institutions, R15 applications:

• Are reviewed together in a special emphasis panel or reviewed in a cluster in a regular study section.

• Reviewed using review criteria that takes into account the goal of these grants.
Unique R15 Review Criteria

Goals of AREA Integrated into Scorable Review Criteria (PA-12-006 & PA-13-313)

• Investigator
• Approach
• Environment
Review Criteria for R15 Grants

Overall Impact

• How likely is it that the project will make an important scientific contribution to the research field(s) involved, to provide research opportunities to students, and to strengthen the research environment of the institution?

More on the AREA/R15 Program

http://grants.nih.gov/grants/funding/area.htm
R15 Resources

• Like NIH AREA Program on Facebook
  – https://www.facebook.com/NIHAreaProgram
• AREA home page
  – http://grants.nih.gov/grants/funding/area.htm
• FAQs
  – http://grants.nih.gov/grants/funding/area_faq.htm
• Email
  – R151@mail.nih.gov
Got a Question Today?

Send it to askexperts@csr.nih.gov
Jumpstart Your Career: CSR Early Career Reviewer Program

Monica Basco, Ph.D.
ECR Program Coordinator
Early Career Reviewer Program Goals

• Train and educate qualified scientists to become critical and well-trained reviewers
• Expose investigators to the peer review experience to help make them more competitive as applicants
• Enrich the existing pool of NIH reviewers
Qualifications for the Early Career Reviewer Program

- Demonstrated training and experience in the scientific areas under review as evidenced by:
  - A faculty appointment or equivalent
  - An active independent program of research
  - At least 2 senior authored research publications in peer reviewed journals in the past 2 years
- Has not previously served on a CSR Study Section
ECR Service

- Attend study section meeting
- Assigned 2-4 applications as 3rd reviewer
- Write full critiques for assigned application
- Participate in no more than one study section per year and no more than twice total
View the Video

Jumpstart Your Research Career with CSR’s Early Career Reviewer Program

www.csr.nih.gov/video/video.asp
ECR Program 2011-2013

- **2,775** ECRs have been accepted into the program
- **1,086** ECRs have served on study sections to date
- **240** SROs have assisted with vetting applicants
- **All** IRGs have included ECR on their rosters
- **222** Study Sections have included ECRs on their rosters
How to Apply for the Early Career Reviewer Program

- Instructions are at www.csr.nih.gov/ECR
- If eligible, your name will be placed into our ECR database
- You will be invited to serve as an ECR when your expertise is needed for particular applications
Got a Question Now?

Send it to askexperts@csr.nih.gov
We Want Your Applications!