



Navigate the Grant Application Process: the Nuts and Bolts of Peer Review at NIH



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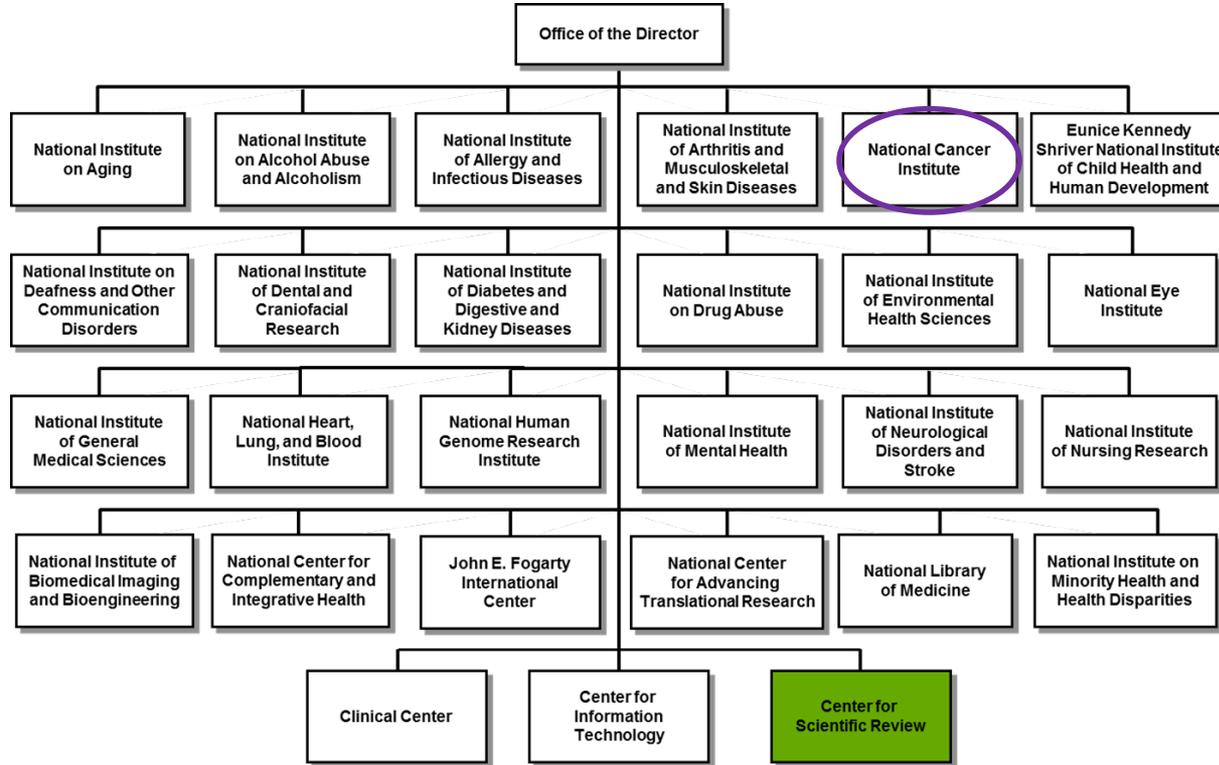
Division of Neuroscience, Development and Aging
NIH-Center for Scientific Review

The National Institutes of Health... turning discovery into health

- NIH is the largest single public funder of biomedical research in the world
- Much of the biomedical research in the United States is supported by the Federal Government, primarily the NIH



Your application could be funded by one of 24 NIH Institutes or Centers (ICs)



The Gateway for NIH Grant Applications:

The Center for Scientific Review



- **Receives all NIH grant applications**
- **Assigns applications to one or more NIH Institutes or Centers** (i.e. potential funding component)
- **Assigns applications to review groups at CSR or at NIH Institutes**
- **Conducts initial scientific merit review of most NIH research applications** - ~75% of NIH grant applications = >60,000 applications/year

Review and Funding of NIH Grant Applications



How NIH lets you know what it wants to support - FOAs

Funding Opportunity Announcements (FOAs)

- **Program Announcements (PA)** Identifies priority areas and/or funding mechanisms for an area.
 - **PAR:** a PA with special receipt, referral and/or review considerations.
 - **PAS:** a PA with set-aside funds.
- **Request for Applications (RFA):** Identifies a focused area where NIH award grants with set aside funds.
- **Request for Proposal (RFP):** Solicits contract proposals, usually with one receipt date.
- **Notices of Special Interest (NOSI):** Simplified notices of specific research interests.
- **Notice (NOT):** Announces policy and procedures, changes to earlier FOAs and general info
- **Subscribe to the NIH Guide Notice:** all important announcements made here = NIH's primary means of communicating to researchers

<https://grants.nih.gov/funding/about-nih-guide-to-grants-and-contracts.htm>

How can investigators find FOAs?



NIH Guide for Grants and Contracts

HOME ABOUT GRANTS **FUNDING** POLICY & COMPLIANCE NEWS & EVENTS ABOUT OER

Find Funding

NIH Guide for Grants and Contracts

The NIH Guide for Grants and Contracts is NIH's official publication of notices of grant policies, guidelines and funding opportunity announcements (FOAs).

We publish daily and issue a table of contents weekly. Learn more about the NIH Guide and subscribe to receive updates today!

Active Funding Opportunities and Notices Search Terms Search Advanced Search

Clear All Filters Searching In

Displaying: 1 to 14 of 14 results Results Per Page 25

Title	FOA/Notice Number	Issuing Organization	Release Date	Expiration Date	Activity Code
Notice of Special Interest (NOSI): Understanding the effects of cancer and cancer treatment on aging trajectories and aging outcomes	NOT-CA-21-031	NCI	Jan 27, 2021	Jan 8, 2024	R21, R03, R01, U01, P01, K99/R03, K08, R43/R44, R41/R42, R13, R21/R33, K01, K23
Limited Competition: Lasker Clinical Research Scholars Transition Award (R00 Clinical Trial Optional)	PAR-20-315	NIH	Nov 5, 2020	Oct 1, 2023	R00
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	RFA-CA-20-057	NCI	Oct 28, 2020	Feb 27, 2021	K99/R00
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	RFA-CA-20-056	NCI	Oct 28, 2020	Feb 27, 2021	K99/R00
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 - Independent Basic Experimental Studies with Humans Required)	RFA-CA-20-055	NCI	Oct 28, 2020	Feb 27, 2021	K99/R00
Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32)	PA-21-048	NIH	Oct 26, 2020	Sep 8, 2023	F32
Notice of Special Interest (NOSI): Research in the Emergency Setting	NOT-NS-20-005	NINDS	Sep 8, 2020	Sep 8, 2022	R01, R21, R03, K01, K99/R00

<https://grants.nih.gov/funding/searchguide/index.html>

Talk to a Program Officer

- They can tell you whether your research fits the institute's priorities.
- They can help you identify funding opportunities.
- They can help you figure out a study section to suggest for the review.
- They can offer advice if you need to resubmit your application after the initial review.

How can you find a program officer?

NIH RePORTER: <https://projectreporter.nih.gov/reporter.cfm>

The screenshot shows the NIH RePORTER website interface. At the top, there is a navigation bar with the NIH logo and the text "Research Portfolio Online Reporting Tools (RePORT)". Below this is a search bar and a menu with options like "HOME", "ABOUT RePORT", "FAQs", "GLOSSARY", and "CONTACT U". A secondary menu contains "QUICK LINKS", "RESEARCH", "ORGANIZATIONS", "WORKFORCE", "FUNDING", "REPORTS", and "LINKS & DATA". The main content area features a "NIH RePORTER" logo and a navigation bar with "QUERY", "BROWSE NIH", "MATCHMAKER", and "SEARCH PUBLICATIONS BETA". A red circle highlights the "MATCHMAKER" tab and a yellow button labeled "FIND PROGRAM OFFICIALS OR SIMILAR PROJECTS". Below this, there are "SUBMIT QUERY" and "CLEAR QUERY" buttons. The "RESEARCHER AND ORGANIZATION" section includes fields for "Principal Investigator (PI) / Project Leader", "Organization", "Department Type", and "Organization Type", along with dropdown menus for "City", "State", "Country", "Congressional District", and "DUNS Number". The "TEXT SEARCH" section has a search box, radio buttons for "And", "Or", and "Advanced", and checkboxes for "Search in" (Projects, Publications, News) and "Limit Project search to" (Project Title, Project Terms, Project Abstracts). There are also dropdown menus for "Limit Publication search to" (Start Year, End Year).

- Input your abstract/aims
- **Matchmaker** Search returns:
 - List of institutes
 - List of funded grants
 - Link to **program officials**
 - Study section that reviewed “similar” funded projects

Help your application get to the right study section

<http://www.csr.nih.gov>



What are you searching for?

[For Applicants](#) | [For Reviewers](#) | [News & Policy](#) | [Study Sections](#) | [Review Panels & Dates](#) | [About CSR](#)

Early Career Reviewer Program

Review experience for early career scientists

[Learn More](#)



Find a Study Section

Enter keyword or title

- or -

Use the Assisted Referral Tool [▶](#)

Key Word **Search**

Assisted Referral Tool **Search**

Output from the Assisted Referral Tool



Center for
Scientific Review

Assisted Referral Tool (ART)

[Help](#) | [Disclaimer](#) | [User Guide](#)

[ART Home](#) >> [SRG](#) >> Report

Animal Usage?

Enter application text and hit the Submit button to get a list of relevant study sections in two groups, "Strong" and "Possible". Within a group, study sections are listed alphabetically by the SRG acronym

Title

Project Summary Inactivation of the p53 tumor suppression pathway is a pivotal event in the formation of most human cancers. Although p53-mediated cell-cycle arrest, senescence and apoptosis serve as critical barriers to cancer development, accumulating evidence suggests that loss of p53-dependent cell cycle arrest, apoptosis, and senescence is not sufficient to abrogate the tumor suppression activity of p53. Several mouse models suggest that tumor suppression by p53 can be achieved in the absence of those canonical functions. The p53 protein achieves diverse cellular outcomes by serving as a DNA-binding transcription factor that selectively modulates the expression of certain p53 transcriptional target genes. Numerous studies have established that acetylation of p53 acts as a key signal in promoter-specific activation of p53 target gene expression. Notably, our earlier studies demonstrate that the p533KR (3KR:K117R+K161R+K162R) acetylation-deficient mutant mouse model, which lacks the ability to undergo p53-mediated apoptosis, senescence and cell cycle arrest, are not significantly prone to developing tumors when compared to p53-null mice. Ferroptosis is a regulated form of non-apoptotic cell death driven by accumulation of lipid hydroperoxides. We found that p53 inhibits cystine uptake and sensitizes cells to ferroptosis by repressing expression of SLC7A11, a key component of the cystine/glutamate antiporter. Indeed, p533KR, an acetylation-defective mutant that fails to induce cell-cycle arrest, senescence and apoptosis, fully retains the ability to regulate SLC7A11 expression and promote ferroptosis. Nevertheless, it remains unclear how p53-mediated

Terms will be weighted by frequency of appearance in the text above. The process is automated and confidential. ART does not track or store submitted text. Characters left: 17187

[Report erroneous classification \(NIH only\)](#)

Relevance	SRG	IRG	Membership	Name
Strong	CAMP	OBT	Roster	Cancer Molecular Pathobiology Study Section
Strong	CE	OBT	Roster	Cancer Etiology Study Section
Strong	MONC	OBT	Roster	Molecular Oncogenesis Study Section
Strong	TCB	OBT	Roster	Tumor Cell Biology Study Section
Possible	CG	OBT	Roster	Cancer Genetics Study Section
Possible	CMAD	CB	Roster	Cellular Mechanisms in Aging and Development Study Section
Possible	CSRS	CB	Roster	Cellular Signaling and Regulatory Systems Study Section
Possible	MCT1	OTC	Roster	Mechanisms of Cancer Therapeutics-1
Possible	MCT2	OTC	Roster	Mechanisms of Cancer Therapeutics-2



If you've identified a potential funding institute and study section, how do you let us know? Use the Assignment Request Form (ARF)

The ARF form replaces many functions of the cover letter.

PHS Assignment Request Form

OMB Number: 0925-0001
Expiration Date: 2/28/2023

Funding Opportunity Number:

Funding Opportunity Title:

Awarding Component Assignment Suggestions (optional)

If you have a suggestion for an awarding component (e.g., NIH Institute/Center) assignment, use the link below to identify the appropriate short abbreviation (e.g., "NCI" for National Cancer Institute) and enter it below in the boxes for "Suggested Awarding Components". All suggestions will be considered; however, not all assignment suggestions can be honored.

Information about Awarding Component can be found here: https://grants.nih.gov/grants/phs_assignment_information.htm#AwardingComponents

Suggested Awarding Components:

Study Section Assignment Suggestions (optional)

If you have a suggestion for a study section assignment, use the link below to identify a study section(s). Enter the short abbreviation for that study section in the boxes for "Suggested Study Sections." Remove all hyphens, parentheses, and spaces. All suggestions will be considered; however, not all assignment suggestions can be honored.

For example, enter "CAMP" if you wish to suggest assignment to the NIH Cancer Molecular Pathobiology study section, or "ZRG1HDMR" if you wish to suggest assignment to the NIH Healthcare Delivery and Methodologies SBIR/STTR panel for informatics.

Information about Study Sections can be found here: https://grants.nih.gov/grants/phs_assignment_information.htm#StudySection

Suggested Study Sections:
Each entry is limited to 20 characters

Rationale for assignment suggestions (optional)

Entry is limited to 1000 characters

List individuals who should not review your application and why (optional)

Entry is limited to 1000 characters

Identify scientific areas of expertise needed to review your application (optional)

Note: Do not provide names of individuals

Expertise:
Each entry is limited to 40 characters

Suggest IC assignment



Suggest review group assignment



Identify (potential) conflict(s)



Suggest expertise needed to evaluate the application

Never recommend reviewers!



A window to your application: eRA Commons

eRA Commons is an online interface where an applicant can:

- Check submitted grant application for errors and warnings and view final image
- **If you cannot see your application in eRA Commons, neither can we.**
- Track review assignment, view review outcomes (score, summary statements), find contact info for scientific review officers (SRO) and program officers (PO)
- Update Personal Profile to ensure relevant eligibility (e.g Early Stage Investigator) 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/>

CSR's Division of Receipt and Referral

Determines if Your Application Is

- On time
- Formatted correctly
- Complete
- Compliant with NIH policy



Assigns Your Application to

- Institute(s) or Center for funding consideration
- Review group at CSR or at an IC review Branch

Assignment to CSR Study Sections

Within an IRG, applications are assigned to:

Standing Study Sections

- When subject matter of application matches the referral guidelines for the study section

Special Emphasis Panels (SEPs)

- When the subject matter does not fit into any study section
- When assignment of an application to the most appropriate study section creates a conflict of interest
- When certain types of grants are sought (e.g., fellowships, SBIRs)

Your Scientific Review Officer

Designated Federal Official with overall responsibility for the review process



- Doctoral level scientist with expertise related to science reviewed in their study section
- Recruits reviewers and assigns applications
- Manages the meeting and conflicts
- Prepares summary statements
- Provides information to NIH Institutes and Centers

The SRO Select Reviewers Who Are Recognized Authorities in their Field

- Doctoral degree or equivalent
- Demonstrated scientific expertise/research support
- Mature judgment and breadth of perspective
- Work effectively in a group context
- Impartiality
- Inclusion of women and minority scientists
- Geographic distribution



The SRO Selects a Chair Among the Panel Who...

- Has a particularly strong scientific and NIH funding track record
- Is a leader in her or his specialty
- Has an especially broad perspective
- Communicates particularly well
- Has a particularly strong reputation for impartiality

Before the Study Section Meeting



Each application is assigned to 3 or more reviewers 5-6 weeks in advance

Reviewers Assess Each Application by Providing:

- Preliminary Overall Impact score
- Criterion scores for each of the 5 core review criteria
- Comment on appropriateness of your budget
- A written critique

Confidentiality

- Review materials and proceedings of review meetings represent confidential information for reviewers and NIH staff.
- At the end of each meeting, reviewers must destroy all review-related material.
- Reviewers should not discuss review proceedings with anyone except the SRO.
- Questions concerning review proceedings should be referred to the SRO.
- Applicants should never communicate directly with any members of the study section about an application.
- Statute of confidentiality is life long.

Reviewer Conflicts of Interest (COI)

What Constitutes a Reviewer COI?

- Institutional
- Family member/close friend
- Collaborator/Key Personnel
- Longstanding scientific disagreement
- Personal bias

http://grants.nih.gov/grants/peer/peer_coi.htm

What Happens at the Review Meeting?



At the Meeting

Clustering of Review

- ESI/NI R01s & some types of applications (e.g., R21, R03) are often reviewed in clusters

Order of Review

- Applications to be discussed are reviewed in random order within each cluster.

Not Discussed Applications

- About half the applications will be discussed
- Applications unanimously judged by the review committee to be in the lower half are not discussed



Role of Study Section Chair

- Partners with the Scientific Review Officer to conduct the meeting
- Scientific moderator who manages discussions at the meeting, e.g., timeliness and thoroughness
- Ensures all study section member opinions are given careful consideration

At the Meeting: Application Discussion



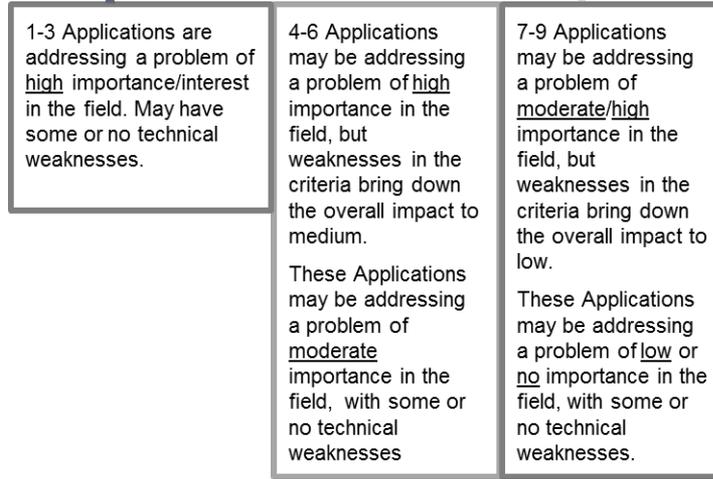
- Any member in conflict with an application leaves the room
- Reviewer 1 introduces the application and presents critique
- Reviewers 2 and 3 highlight new issues and areas that significantly impact scores
- All present members are invited to join the discussion and then vote on the final overall impact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

Scoring Overall Impact

Overall Impact:

The likelihood for a project to exert a sustained, powerful influence on research field(s) involved

Overall Impact	High	Medium	Low
Score	1 2 3	4 5 6	7 8 9



Evaluating Overall Impact:

Consider the 5 criteria: significance, investigator, innovation, approach, environment (weighted based on reviewer's judgment) and other score influences, e.g. human subjects

5 is a good medium-impact application

Review Criteria

5 Scored Review Criteria

- **Significance**
- **Investigator(s)**
- **Innovation**
- **Approach**
- **Environment**

Each scored from 1-9



Overall Impact

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

Scored from 1-9

Additional Scorable Review Criteria in Assessing Overall Impact



- Protections of human subjects
- Inclusion plans for sex/gender, race/ethnicity, and age of human subjects across the lifespan
- Appropriate use of vertebrate animals
- Management of biohazards

Fellowship Review Criteria:

Overall Impact

Assessment of the likelihood that the fellowship will enhance the applicant's potential for, and commitment to, an independent, productive research career in a health-related field.

Core Review Criteria

1. Fellowship Applicant
2. Sponsors, Collaborators, and Consultants
3. Research Training Plan
4. Training Potential
5. Institutional Environment & Commitment to Training

After Your Review



Your SRO

- Release scores within 3 business days
- Prepares summary statements within 30 days
- Provides information to NIH Institutes and Centers

Check the Status of Your Application in NIH eRA Commons

Contacts

Administration: Scientific Review Administrator(SRO))
Name:
Phone:
Email:

Administration: Program Official (PO)
Name:
Phone:
Email:

Latest Update

Application Source: Grants.gov
FOA: [PA16-160] - NIH Research
Project Grant (Parent R01)

eRA Commons Desk

Hours: Mon-Fri, 7AM-8PM
EDIT/EST
Web: <http://grants.nih.gov/support>
Toll-free: 866-504-9552
Phone: 301-402-7469
Contact initiated outside of business hours via Web or voice mail will be returned the next business day.

Status Information

Filter x

Expand All Collapse All Print

1 R01 DK111624-01A1

Status: Scientific Review Group review pending. Refer any questions to the Scientific Review Administrator. **Project Title:**

PI Name: **NIH Appl. ID:** **Application ID:** 1 R01 DK 00000-01

- Status
- Other Relevant Documents
- Additions for Review
- Review
- Institute/Center Assignment
- Status History
- Reference Letter(s)



Review

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

Questions?

Your program officer has the prime responsibility to answer questions about your review and preparing a new application.

Summary Statement

Program Officer

SUMMARY STATEMENT

PROGRAM CONTACT: (Privileged Communication) Release Date: 02/05/2019
Austin Yang Revised Date:
301.496.9350
yangj13@mail.nih.gov

Application Number: 1 R01 AG

Principal Investigator

Impact/Priority Score 10-90 range

Applicant Organization:

Review Group: CMND
Cellular and Molecular Biology of Neurodegeneration Study Section

Meeting Date: 01/31/2019 RFA/PA: PA18-484
Council: MAY 2019 PCC: 3BSETAY
Requested Start: 07/01/2019

Percentile in whole numbers

Project Title:

SRG Action: Impact Score:34 Percentile:13
Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm
Human Subjects: 10-No human subjects involved
Animal Subjects: 30-Vertebrate animals involved - no SRG concerns noted

Project Year	Direct Costs Requested	Estimated Total Cost
1	349,997	564,629
2	350,802	565,928
3	361,871	583,785
4	387,212	624,666
5	384,834	620,830
TOTAL	1,834,716	2,959,839

Indicator for Early Stage Investigators/New Investigator eligibility

ADMINISTRATIVE BUDGET NOTE: The budget shown is the requested budget and has not been adjusted to reflect any recommendations made by reviewers. If an award is planned, the costs will be calculated by Institute grants management staff based on the recommendations outlined below in the COMMITTEE BUDGET RECOMMENDATIONS section.

EARLY STAGE INVESTIGATOR
NEW INVESTIGATOR



Center for
Scientific Review

A large, thick purple arrow that starts from the bottom left and curves upwards and to the right, pointing towards the top right corner of the slide. It is positioned over a horizontal green bar and a grey shape with a green chevron.

Jumpstart Your Career:
Serve a on review panel under **CSR's Early
Career Reviewer Program**

<https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR>

Early Career Reviewer Program Goals



- Train and educate qualified scientists to become critical and well-trained reviewers
- Expose investigators to NIH 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

Employment

- You have at least **2 years experience as a full-time faculty member** (assistant professor or equivalent)

Grant & Review History

- You have not served on an NIH study section (except mail reviewer).
- You have not held an R01 or R01-equivalent grant as a PI/PD. You must have submitted a NIH grant proposal as a PI and received the associated summary statement (any grant mechanism except fellowships)

Research

- You have evidence of an active, independent research program.
- You have at least 2 “senior” authored (first, last, or corresp. author) research publication in a peer-reviewed journal – 1 since doctoral degree, 1 in the last 2 yrs.

<https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR>

Resources: Who should you talk to? When?

Before you submit

Program officer -> Institute priorities, FOAs..

Scientific Review Officer -> inquiries about study section

After you submit and before the review – Your Scientific Review Officer

After the review – your Program Officer

If you have trouble finding these contacts, email CSR – we'll put you in touch with the right people: communications@csr.nih.gov

Key NIH Review and Grants Web Sites

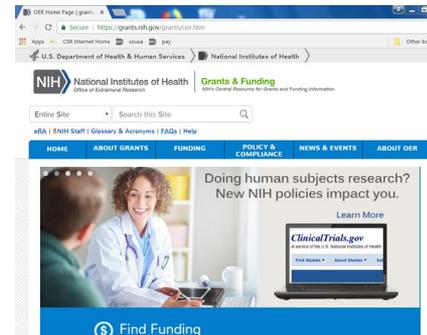
NIH Center for Scientific Review

<http://www.csr.nih.gov>



NIH Office of Extramural Research

<http://grants.nih.gov/>



How can you learn more about the review process?

<https://public.csr.nih.gov>

For Applicants

For Reviewers



Application Process

CSR does not award funding but instead handles review of proposals. Please visit the NIH for an overview of the grant process or view our video What Happens to Your Grant Application.



Planning & Writing

Guidance to assist you in planning and preparing a proposal.



Application Deadlines

Standard receipt dates for grant proposals



Become a Reviewer

We welcome researchers who volunteer to serve on our peer review groups. Explore the ways you can do this.



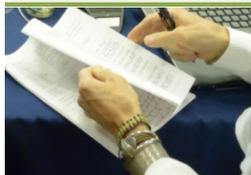
Meeting Overview

Explore orientation materials and resources to get you started.



Guidelines & Templates

Learn about review criteria, scoring and possible conflict of interest information.



Submission & Assignment

How proposals are assigned to a review group



Initial Review, Results, & Appeals

What happens in the review process?



Frequently Asked Questions (FAQs)

Top 10 and Top 100 Peer Review Q&As for NIH Applicants



Tools & Technology

Looking for guidance on the technology we use? Explore our online tutorials and tools.



Travel & Reimbursement

Explore all you need to know to about getting reimbursed for travel and



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Top Peer Review Q&As for NIH Reviewers

Question?

