# National INSTITUTES of Health

#### 🖑 U.S. Department of Health & Human Services



National Institutes of Health

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NIH is made up of **27 Institutes and Centers**, each with a specific research agenda, often focusing on particular diseases or body systems. NIH leadership plays an active role in shaping the agency's activities and outlook. Learn more about NIH **b** 

#### NIH OFFICES

#### NIH Office of the Director (OD)

The Office of the Director is the central office at NIH for its 27 Institutes and Centers. The OD is responsible for setting policy for NIH and for planning, managing, and coordinating the programs and activities of all the NIH components. OD's program offices include the Office of AIDS Research and the Office of Research on Women's Health, among others.

	NIBIB	NIGMS	CSR
	NICHD	NIMH	FIC
I	NIDCD	NIMHD	NCCAM
	NIDCR	NINDS	NCATS
	NIDDK	NINR	CC
	NIDA	NLM	OD

NIEHS

CIT

#### NIH INSTITUTES

#### National Cancer Institute (NCI) - Est. 1937

NCI leads a national effort to eliminate the suffering and death due to cancer. Through basic and clinical biomedical research and training, NCI conducts and supports research that will lead to a future in which we can prevent cancer before it starts, identify cancers that do develop at the earliest stage, eliminate cancers through innovative treatment interventions, and biologically control those cancers that we cannot eliminate so they become manageable, chronic diseases.

#### National Eye Institute (NEI) - Est. 1968

The National Eye Institute's mission is to conduct and support research, training, health information dissemination, and other programs with respect to blinding eye diseases, visual disorders, mechanisms of visual function, preservation of sight, and the special health problems and requirements of the blind.

#### See Also

**Ouick Links** 

NIAMS

NCI

NEI NHLBI

NHGR

NIA

NIAAA

NIAID

Directors of NIH Institutes and Centers

Mailing Addresses for NIH Institutes and Centers



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# Research Project Grants Applications, awards, and success rates





# The application process:

# Suggestions and Resources

# **NIH Grant PROCESS Overview**

NIH National

National Institutes of Health Office of Extramural Research Glossary & Acronyms

#### **Grants Process Overview**

Any successful project requires planning, development, implementation, and follow-through. Obtaining NIH funding for your research idea is no exception. The Grants Process Overview below provides an overview of the steps required for an application to proceed from application planning and submission through award and close out. Look to the related resources on each page for special guidance from NIH experts that can help maximize your understanding of the grants process and help you submit a successful grant application.



All About Grants Podcasts Available

Writing Submitting Plannina Applicant often begins writing Applicant organization submits Applicant should start early, collect preliminary data, and most applications to NIH through application several months determine internal deadlines. prior to application due date. Federal portal, Grants.gov. Second Level of Review Months 1 - 3 Advisory council/board reviews **Receipt and Referral** opplications DC Scientific Review Officer (SRO) costors Applications compliant with NErtpolicies CSR assigns application to an NH Months 9 - 10 Award are assigned for review by the Division of institute/Center (IC) and a Scientific Review applications to reviewen and readers. Receipt and Referral in the Center of Group (SRG). Scientific Review (CSR). Notification of Award Pre-Award Process Congratulations! Months 4 - 8 Peer Review IC grants management staff conducts final 888 NH Institute/Center (IC) director makes Project period officially begins! administrative review and negotiates award." Anding decision. IC staff issues and sends Notice of Award (NoA) to applicant Institution/organization. Initial Level of Review Impact Scores Summary Statement Available to Principal Investigator on eITA Available to Principal Investigator on SRG members review and evaluate applications for scientific merit, Commons eltA Commona. Post-Award Management Administrative and facal maniforing, reporting, and compliance.

## **NIH RePORTER Website**

#### http://projectreporter.nih/gov/reporter.cfm

### **Research Portfolio Online Reporting Tools**



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### **Online video resources for applicants:**



CSR has produced a series of videos to give you an inside look at how scientists from across the country review NIH grant applications for scientific and technical merit.

New and established applicants will find insights and understanding that can empower them to improve the applications and increase their chances for receiving a more positive review.



#### http://www.youtube.com/watch?v=fBDxl6l4dOA&feature=youtu.be

### NIH's Office of Extramural Research Website (http://grants.nih.gov/grants/oer.htm)



#### **NCI/NIH Funding Opportunity Announcements (a few)**

PA-11-260: Research Project Grants (*Parent R01*)
PAR-12-145: NCI Exploratory/Developmental Research Grant (*NCI Omnibus R21*)
PAR-12-005: National Cancer Institute Program Project (*P01*) Applications
PAR-12-144: NCI Small Grants Program for Cancer Research (*NCI Omnibus R03*)
PAR-11-150: Quantitative Imaging for Responses to Cancer Therapies(*U01*)
PAR-13-185: Image-guided Drug Delivery in Cancer (R01)
PAR-13-169: Academic-Industrial Partnerships for Translation of in-vivo Imaging Systems for Cancer Investigations (R01)

### Hints about writing the proposal:

You must start with an original, compelling idea that will generate excitement.

-should not be incremental in nature -but should also not be over-ambitious

The idea, its potential impact and benefits should be clearly stated -early (in the abstract and project description) -explain why the proposal deserves funding -research objectives should be presented early

Present a clear and direct hypothesis

Present alternatives

-Carefully balance confidence in planned work with a rational well-conceived back-up plan.

Request appropriate funding

-Too little or too much reflects poorly on investigator

- •Is it clear and compelling?
- •Does the experimental plan flow smoothly?
- •Are the aims coherent, but independent?
- •Appropriate statistics input power calculations
- Alternative hypotheses / methodologiesRealistic timeline

<u>No grant should be submitted without internal</u> <u>review</u> (preferably more than one). Better to skip a cycle than submit a suboptimal proposal.

# **Pay attention to details:**

Follow application instructions carefully -Fonts, margins, page limits etc...

Make the application easy to read -Font and figures appropriately sized (remember reviewers are not that young) -Avoid jargon and abbreviations

Biosketch(s) and other supporting documents up-to-date

Letters of support that address the proposal

Proofread (and re-check uploads) Poor grammar and text errors reduce scores. Stuff happens when uploading.

## New Investigators/Early Stage Investigators

It is especially important to stress level of independence, institutional support & mentoring available. Project should be distinct from your mentor's work.

New Investigator (NI)

PD/PI who has not yet competed successfully for a substantial NIH research grant

Multiple PD/PI applications - all PD/PIs must meet requirements for NI status.

### Early Stage Investigator (ESI)

PD/PI who qualifies as a New Investigator AND is within 10 years of completing the terminal research degree or is within 10 years of completing medical residency (or equivalent)

New Investigators/Early Stage Investigators will be clustered together for review.

Any advantages apply only to R01 applications. If more than one PI, all must be NI for any advantage.

# **The Review**

## **Divisions and Integrated Review Groups (IRGs)**



### **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

- **Significance:** Does the project *address an important problem or critical barrier to progress in the field?* If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- Investigator(s)
- Innovation
- Approach
- Environment

Review criteria each scored from 1-9

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### 9-Point Scoring Scale

Impact	Score	Descriptor
	1	Exceptional
High Impact	2	Outstanding
	3	Excellent
	4	Very Good
Moderate Impact	5	Good
	6	Satisfactory
	7	Fair
Low Impact	8	Marginal
	9	Poor

The impact score is NOT a numerical average of the criterion scores, as each reviewer determines the relative importance of the criterion scores for each grant under consideration. The scoring system utilizes a 9-point rating scale (1 = exceptional; 9 = poor). The final overall impact score for each discussed application is determined by calculating the mean score from all the eligible members' impact scores, and multiplying the average by 10; the final overall /impact score is reported on the summary statement. Thus, the final overall impact scores range from 10 (high impact) through 90 (low impact).

## **Order of Review**

- Cluster groups of applications
  - NI/ESI R01s must be clustered
  - Clinical Applications are clustered, if feasible
  - All other activity codes are clustered, if feasible (need at least 10 discussed, may include R03, R15, and R21s as a group that can be clustered).
- For score calibration purposes...
  - Applications discussed in order of average preliminary score. Beginning in each cluster by discussing the best scored application.

# **Summary Statement**

# The following results are provided to the applicant and the assigned NIH Institute(s) or Center(s) that may fund it.

- Essentially unedited critiques
- Scores for each review criterion
- Administrative notes if any

### If an application is discussed, additional feedback is given

- Summary of review discussion
- An overall impact/priority score and percentile ranking
- Budget recommendations

## when you get the summary statement

### **Communicate with your program officer**

If successful, prepare just-in-time information for submission -IACUC, IRB approvals -updated other support -information must be current (< 6 mos)

If you must resubmit:

-Don' t rush it – you only get one more chance
-Talk over review with program director
-Carefully and succinctly address critiques
-If you rebut a review point, do so respectfully, with supporting evidence. Don' t rebut the reviewer!
-Get external review of revised application prior to resubmission.

## **The Single Revision Policy:**

### Notice Number: NOT-OD-09-003

The NIH will accept only a single amendment to the original application. Failure to receive funding after two submissions (i.e., the original and the single amendment) will mean that the applicant should substantially re-design the project rather than simply change the application in response to previous reviews.

Submission of an A0 (new) application under a different activity code (R01 to R21, for example) with any degree of overlap with the original application after the release of the summary statement for the first application. If this is done, an A1 may not be submitted for the original lineage.

# Conclusions

•The budget situation is fluid and is limiting funding for science across the board.

•The competition for available funds is very intense.

•Radiation sciences are under-represented and need strong advocates.

•SPL review increases scrutiny of grants for potential impact.

 Program staff advocate for strong grants internally through this process.

 Many clear and compelling proposals in all fields continue to be funded. 燕 National Cancer Institute





### What are SBIR & STTR?

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs are NCI's engine of innovation for developing and commercializing novel technologies and products to prevent, diagnose, and treat cancer.

The SBIR & STTR Programs are one of the largest sources of early-stage technology financing in the United States. We welcome entrepreneurs and small business leaders to this website to explore grant and contract funding opportunities and a new spirit of collaboration with the NCI.

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## APPLICATION 1-R01-CA-123456-01-A1

#### 2. Decoding the grant application number

The unique identification number for all NIH applications has an organizational structure as illustrated below:

Т	ype	Activity code	Institute code	Serial number	Support year	Extension
1		R01	AB	987654	01	A1

#### a) Application type

In the NIH grants process, five types of applications are used most frequently. Each of the first four application types is considered "competing" because they must undergo peer review before NIH may fund them.

1 New - Request for support of a project that has not yet been funded

**2 Renewal** (formerly competing continuation) - Request for an additional term of support based on a funded previous project; must compete for available funds

**3 Competing revision/administrative supplement** - Request for additional funds for a current award, to cover increased costs (noncompeting) or to expand the scope of work (competing)

**4 Extension** - Request for additional funds beyond the years previously awarded; limited to certain activities, including method to extend research in time (MERIT) awards and certain fellowship (F) and career (K) awards (Note: These F and K applications do not compete for funds. MERIT awards do require review from the National Advisory Council.)

**5** Noncompeting continuation - Request to pay next budget increment of a current award; does not compete for available funds

6 Change of organization status (also known as successor-in-interest) – Request for support of a funded project at an institution where the legal status of the organization has been changed through an approved change of organization status action

7 Change of grantee or training institution - Request for support of a funded project that has been transferred from one grantee or training institution to another

8 Change of institute or division - Noncompeting continuation (cf. Type 5) that has been transferred from one ICD to another

**9 Change of institute or division** - Competing continuation (Type 2) that has been transferred from one IC to another

#### b) Activity code

An activity code is a three-digit code identifying a specific category of extramural activity. A <u>comprehensive list of activity codes</u> may be found on the <u>Types of Gra</u> <u>Programs</u> webpage.

#### Institute code/awarding component

c)

Each of the ICs (plus the Office of the Director that manages some awards through the NIH Common fund, and several for other agencies in HHS) has a unique twocharacter identifier, as indicated below (see also the <u>acryonym list</u>).

# **Important Websites**

NIH Office of Extramural Research: http://grants.nih.gov/grants/oer.htm

NIH RePORTER: http://projectreporter.nih.gov/reporter.cfm

NCI Division of Extramural Affairs: <a href="http://deainfo.nci.nih.gov/">http://deainfo.nci.nih.gov/</a>

Radiation Research Program: <u>http://rrp.cancer.gov</u>

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NATIONAL INSTITUTE OF HEALTH Cancer Imaging Program: http://imaging.cancer.gov