NIH FUNDING MECHANISMS OVERVIEW (R03, R01, R21)

RESEARCH AND FACULTY DEVELOPMENT FACULTY SUCCESS SEMINAR SERIES

Carly Cummings, PhD, CPRA
Director, Research and Faculty Development

Special Guest: Deborah Stenkamp, PhD
Professor, Biological Sciences

Please note that this session is being recorded
OFFICE OF RESEARCH AND FACULTY DEVELOPMENT (RFD)

- We provide proposal development assistance across the spectrum*
- Meet goals in the UI strategic plan – grow research and creative efforts across all disciplines
- Reach out to request service – uidaho.edu/orfd

*Not including budget preparation

*All services are optional and are granted on a first come, first served basis*
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Morrill Hall
Room 103 – come say hello!
HELP US IMPROVE OUR SEMINARS

After the Q&A session: brief 3 question sli.do poll

- On a scale from 1-5, how helpful was this seminar?
- What did you like most about this seminar?
- How can we improve this seminar?

www.slido.com or use the sli.do app (Use code #FSS)
AUDIENCE POLL

Proposal submission to NIH?

R03? R21? R01?
NATIONAL INSTITUTES OF HEALTH

- Federal funding agency
- Part of the U. S. Department of Health and Human Services (HHS)
- Began in 1887 as a one-room laboratory in Marine Hospital Services
- Director: Francis S. Collins, MD, PhD (since 2009)
- NIH’s mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
NIH divided into 27 Institutes/Centers (I/C) → Study Sections → Research funding mechanisms (R)

NIH Regional Grants Conference - Spring and Fall
NATIONAL INSTITUTES OF HEALTH

- Located in Bethesda, Maryland
- Campus >300 acres
- >75 buildings (photos)
- Intramural research program
- 80% research activities outside NIH
Funding Opportunity Announcement (FOA)/ Parent Announcements (PA)
- More about this naming here
Not all Institutes/Centers (I/C) participate in all PA/FOAs
- R03: NIH Small Grant Program
- R21: NIH Exploratory/Developmental Research Grant Award
- R01: NIH Research Project Grant Program
- R15: UI not eligible to apply
R03

- Provides *limited funding* for a *short period of time* to support a variety of types of projects, including: pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data, small, self-contained research projects, development of new research technology, etc.

- 2 years of funding

- **Direct costs** generally up to $50,000 per year (NIH caps do not include F&A)

- Not renewable

- Utilized by >50% of the NIH ICs

- See parent FOA: [PA-19-052](#)

  - 19: Year of PA release; 052: serial number
Department of Health and Human Services
Part 1. Overview Information

<table>
<thead>
<tr>
<th>Participating Organization(s)</th>
<th>National Institutes of Health (NIH)</th>
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</table>

Components of Participating Organizations

- National Human Genome Research Institute (NHGRI)
- National Institute on Aging (NIA)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institute of Allergy and Infectious Diseases (NIAID)
- National Institute of Biomedical Imaging and Bioengineering (NIBIB)
- National Institute on Drug Abuse (NIDA)
- National Institute of Environmental Health Sciences (NIEHS)
- National Institute of Mental Health (NIMH)
- National Institute of Neurological Disorders and Stroke (NINDS)

Note: Not all NIH Institutes and Centers (ICs) participate in Parent Announcements. Applicants should carefully note which ICs participate in this announcement and view their respective areas of research interest at the R03 IC-Specific Scientific Interests and Contact website.

ICs that do not participate in this announcement will not consider applications for funding.

Funding Opportunity Title

NIH Small Research Grant Program (Parent R03 Clinical Trial Not Allowed)

Activity Code

R03 Small Grant Program

Announcement Type

Reissue of PA-18-488
R21

- Encourages new, exploratory and developmental research projects by providing support for the early stages of project development. Sometimes used for pilot and feasibility studies.
- Typically up to 2 years of funding
- Direct costs generally do not exceed $275,000
- No preliminary data is generally required (more on this later)
- Most ICs utilize
- See parent FOA: PA-19-053
Department of Health and Human Services
Part 1. Overview Information

Participating Organization(s)
National Institutes of Health (NIH)

Components of Participating Organizations
- National Eye Institute (NEI)
- National Human Genome Research Institute (NHGRI)
- National Institute on Aging (NIA)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institute of Allergy and Infectious Diseases (NIAID)
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- National Institute on Deafness and Other Communication Disorders (NIDCD)
- National Institute of Dental and Craniofacial Research (NIDCR)
- National Institute on Drug Abuse (NIDA)
- National Institute of Environmental Health Sciences (NIEHS)
- National Institute of Nursing Research (NINR)
- National Institute on Minority Health and Health Disparities (NIMHD)
- National Library of Medicine (NLM)
- National Center for Complementary and Integrative Health (NCCIH)

Note: Not all NIH Institutes and Centers (ICs) participate in Parent Announcements. Applicants should carefully note which ICs participate in this announcement and view their respective areas of research interest at the R21 IC-Specific Scientific Interests and Contact website. ICs that do not participate in this announcement will not consider applications for funding.

Funding Opportunity Title
NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)

Activity Code
R21 Exploratory/Developmental Research Grant

Announcement Type
Reissue of PA-18-489
**R01**

- NIH's most commonly used grant program
- Used to support a discrete, specified, circumscribed research project
- No specific dollar limit unless specified in FOA
  - Advance permission required for $500K or more (direct costs) in any year (typical practice; not just for R01)
- Generally awarded for 3-5 years
- Utilized by all ICs
- See parent FOA: [PA-19-056](https://www.fda.govしかない)
NIH STANDARD DEADLINES

- Three cycles per calendar year
- Dates vary for activity codes and if the submission is a new, renewal, or resubmission (Table)
  - R01 new: Feb. 5, June 5, Oct. 5
  - R01 resubmission, renewal, revision: Mar. 5, July 5, Nov. 5
  - R03 and R21 new: Feb. 16, June 16, Oct. 16
  - R03 and R21 resubmission, revision (not renewable): Mar. 16, July 16, Nov. 16
CONSIDERATIONS FOR R21 AND R03

1. R21 and R03 are small, but not easy to get
   - Competitive peer review
   - No advantage for early or new investigators during peer review unlike R01 peer review (payline, expectations)
     - New: not substantial independent NIH funding (R03 and R21 OK)
     - Early-stage: new and within 10 years of terminal research degree

2. Not necessarily a starting place for future R01 submission
   - established investigators who want to complete a limited project
   - Not designed to help establish a research career
CONSIDERATIONS FOR R21 AND R03

- Shorter Research Strategy (6-page v. 12-page for R01) = tightly focused research plan

- Preliminary data are not required for R21...
  - However, they correlate with funding success = reviewer expectations

- Is a 2-year award sufficient to complete a project to generate necessary preliminary data for R01?
  - Consider ~9 months to receive review outcome; additional time for award

- If you have sufficient preliminary data, submitting a competitive R01 may be the better option
## COMPARING R21 AND R01

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Parent R21</th>
<th>Parent R01</th>
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<tr>
<td><strong>Purpose</strong></td>
<td>To introduce novel scientific ideas, model systems, tools, agents, targets, and technologies that have the potential to substantially advance biomedical research.</td>
<td>To support a discrete, specified, circumscribed project...in an area representing the investigator's specific interest and competencies, based on NIH's mission.</td>
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<tr>
<td><strong>Duration</strong></td>
<td>Up to two years.</td>
<td>Up to five years.</td>
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<tr>
<td><strong>Budget</strong></td>
<td>Up to $275,000 in direct costs over two years. At most $200,000 for any year.</td>
<td>Unlimited. (But note that most new investigators submit a modular grant of $250,000 or less.)</td>
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<tr>
<td><strong>Renewal</strong></td>
<td>No.</td>
<td>Yes, as a renewal application.</td>
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<tr>
<td><strong>Preliminary data</strong></td>
<td>Not required, but read <a href="#">Know the Importance of Preliminary Data for R21.</a></td>
<td>Required.</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>For a list of participating institutes and centers (ICs), see the parent R21 announcements on our Funding Opportunity Announcements page.</td>
<td>Most NIH ICs. For a list of participating ICs, see the parent R01 announcements on our Funding Opportunity Announcements page.</td>
</tr>
<tr>
<td><strong>New Investigator benefits</strong></td>
<td>None.</td>
<td>Higher payline than non-new PIs, lower reviewer expectations, and other benefits.</td>
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</table>
National Institute of Biomedical Imaging and Bioengineering (NIBIB) Trailblazer Award for New and Early Stage Investigators (R21)

- A distinct feature for this FOA is that no preliminary data are required, expected, or encouraged.

- However, if available, minimal preliminary data are allowed. All preliminary data should be clearly marked and limited to one-half page, which may include one figure. Applications including data more than one-half page or more than one figure will be considered noncompliant with the FOA instructions and will not go forward to review.
ASK BEFORE ASSUMING

- Talk with funded colleagues/mentors
- Contact an NIH Program Official before beginning to write
  - Identify the appropriate I/C, study section, and funding mechanism
  - Use MatchMaker tool within NIH REPORTER
  - Research and Faculty Development team can help
NIH AWARD DATA: MATCHMAKER

https://projectreporter.nih.gov/reporter_matchmaker.cfm

Enter ~6 pages of single-spaced text
To see the types of projects that have been funded, go to NIH RePORTER and select the specific Activity Code.

- MyRePORTER Video Tutorial (6:35)
TOOLS/RESOURCES

Source for this presentation: Comparing Popular Research Project Grants: R01, R03, or R21 [NIH NIAID Article](#)

Early Stage Investigator (ESI) [Policies](#)
- Including ESI extension request information

Next week’s FSS: Developing Your First R01 Proposal
LET’S ASK OUR EXPERT
DR. DEBORAH STENKAMP

Decision-making process for a proposed NIH project – what funding mechanism is appropriate?

Review panel take-aways
- New/ESI proposal review

Advice to early career PIs

Other considerations
FACULTY SUCCESS SEMINARS

Let Us Be Your Guide Through the Proposal Development Process

JOIN US IN IRIC 305
12:30 P.M. – 1:30 P.M. PT

Can’t join us in person? Then join us live via Zoom: uidaho.zoom.us/j/798224314. Each seminar will be recorded and be available on our website.

University of Idaho
Office of Research and Faculty Development
# FALL 2019

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<td>HERC IGEM Info Session</td>
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<td>Sept. 11</td>
<td>Find Funding Opportunities: Intro to Pivot</td>
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<td>Sept. 25</td>
<td>NSF CAREER All Year: An Introduction</td>
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<td>Oct. 2</td>
<td>W.M. Keck Foundation Info Session</td>
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<td>Oct. 16</td>
<td>Tips for Successful Proposal Writing</td>
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<td>Oct. 23</td>
<td>NSF CAREER All Year: Getting Started</td>
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<td>Oct. 30</td>
<td>Exploring Humanities Funding Opportunities</td>
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<td>Nov. 13</td>
<td>MW CTR-IN Funding Opportunities</td>
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<td>Nov. 20</td>
<td>NSF CAREER All Year: Integrating the Research and Education Plans</td>
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<td>Dec. 11</td>
<td>M.J. Murdock Trust Commercialization Initiation Program Info Session</td>
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# SPRING 2020

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<td>Jan. 22</td>
<td>Developing Successful Project Management Plans for Large Proposals</td>
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<td>Feb. 5</td>
<td>NSF: Broader Impacts Really Do Matter!</td>
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<td>Feb. 12</td>
<td>NIH: Funding Mechanisms Overview (R03, R21, R01)</td>
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<td>Feb. 19</td>
<td>NIH: Developing Your First RO1 Proposal</td>
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<td>Mar. 4</td>
<td>NIH: Understanding Proposal Review</td>
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<td>Mar. 11</td>
<td>NSF: Understanding Proposal Review</td>
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<td>Mar. 25</td>
<td>Fulbright Faculty Scholar Program Info Session</td>
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<td>Apr. 1</td>
<td>Find Funding Opportunities: Intro to Pivot</td>
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<td>Apr. 8</td>
<td>NSF MRI: Creating Competitive Proposals</td>
</tr>
<tr>
<td>Apr. 15</td>
<td>Developing Successful Project Management Plans for Large Proposals</td>
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**WE GUIDE THE DEVELOPMENT OF COMPETITIVE EXTERNAL GRANT PROPOSALS**

- **Office of Research and Faculty Development**
  - Phone: (208) 885-1144
  - Email: ored-rfdteam@uidaho.edu
  - Website: uidaho.edu/orfd
THANK YOU FOR COMING!

QUESTIONS?

BEFORE YOU GO...

Please take a brief 3-question slido poll

www.slido.com or use the slido app

Use code #FSS