

Navigating NIH Funding for your Research: Undergraduate to Professor

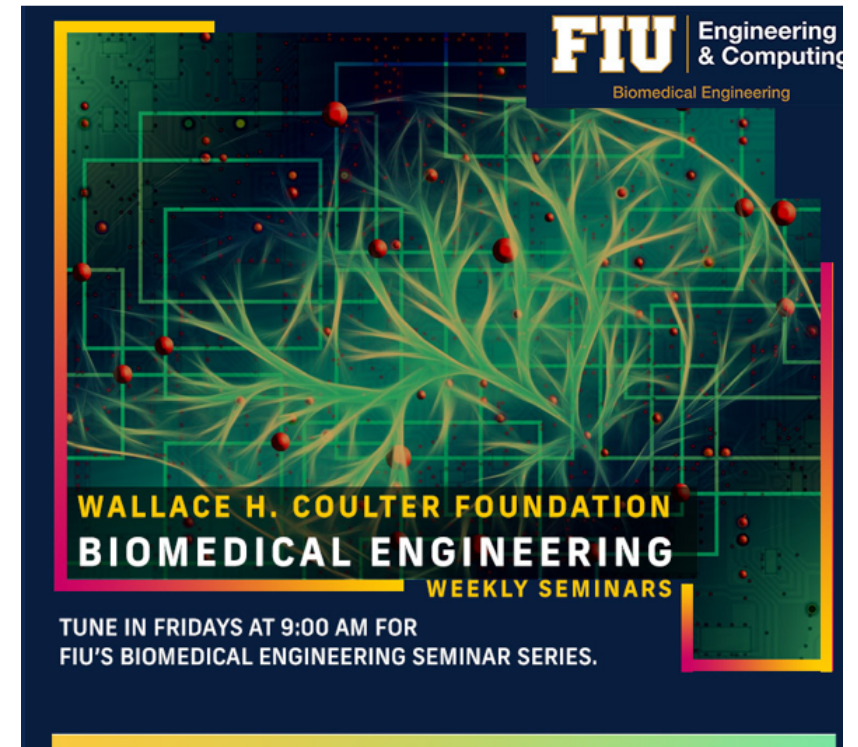
Rob Rivers, PhD

Robert.rivers@nih.gov

@robclayrivers

Talk Highlights

- Background about NIH/NIDDK
- Career and Fellowship Awards
 - Planning
 - Application
 - Details
- Research Funding





Contact your NIH Program
Officer before you submit your
grant



Read through the Program
Announcement or Request for
Applications carefully before
beginning work

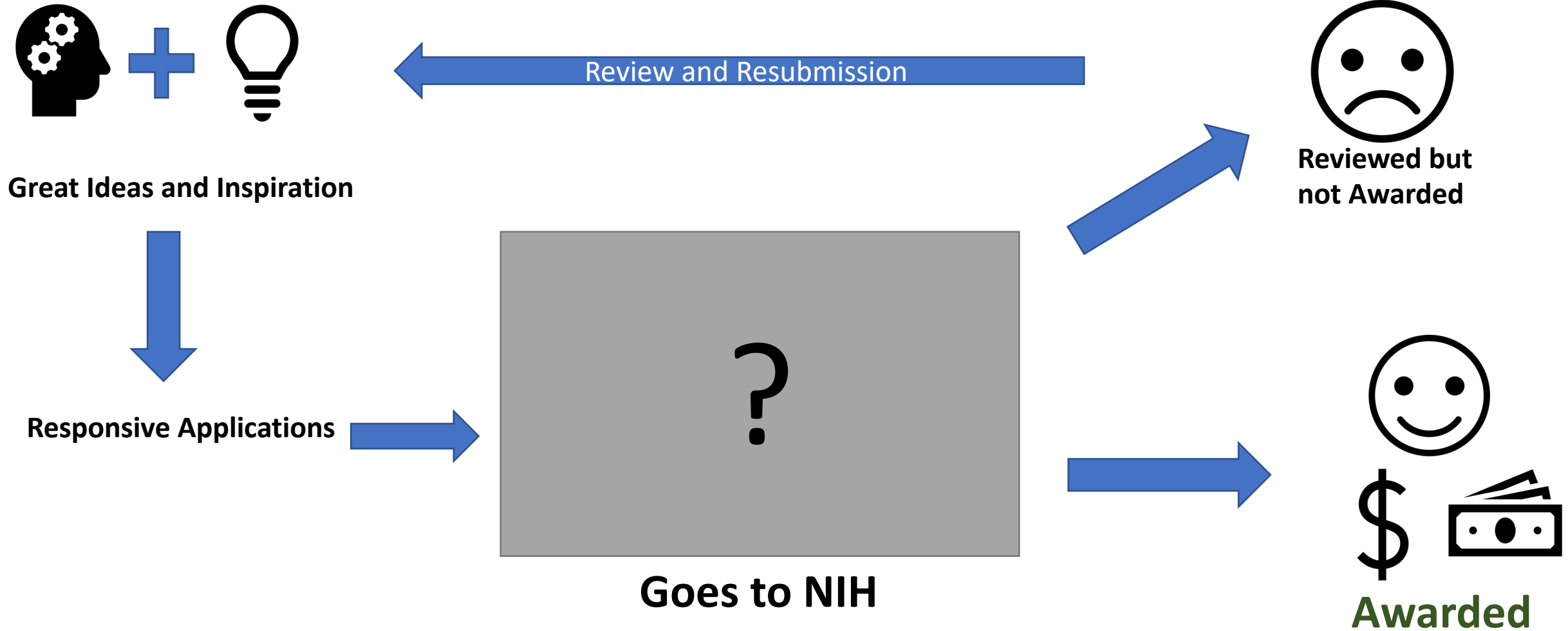


Check with NIH REPORTER

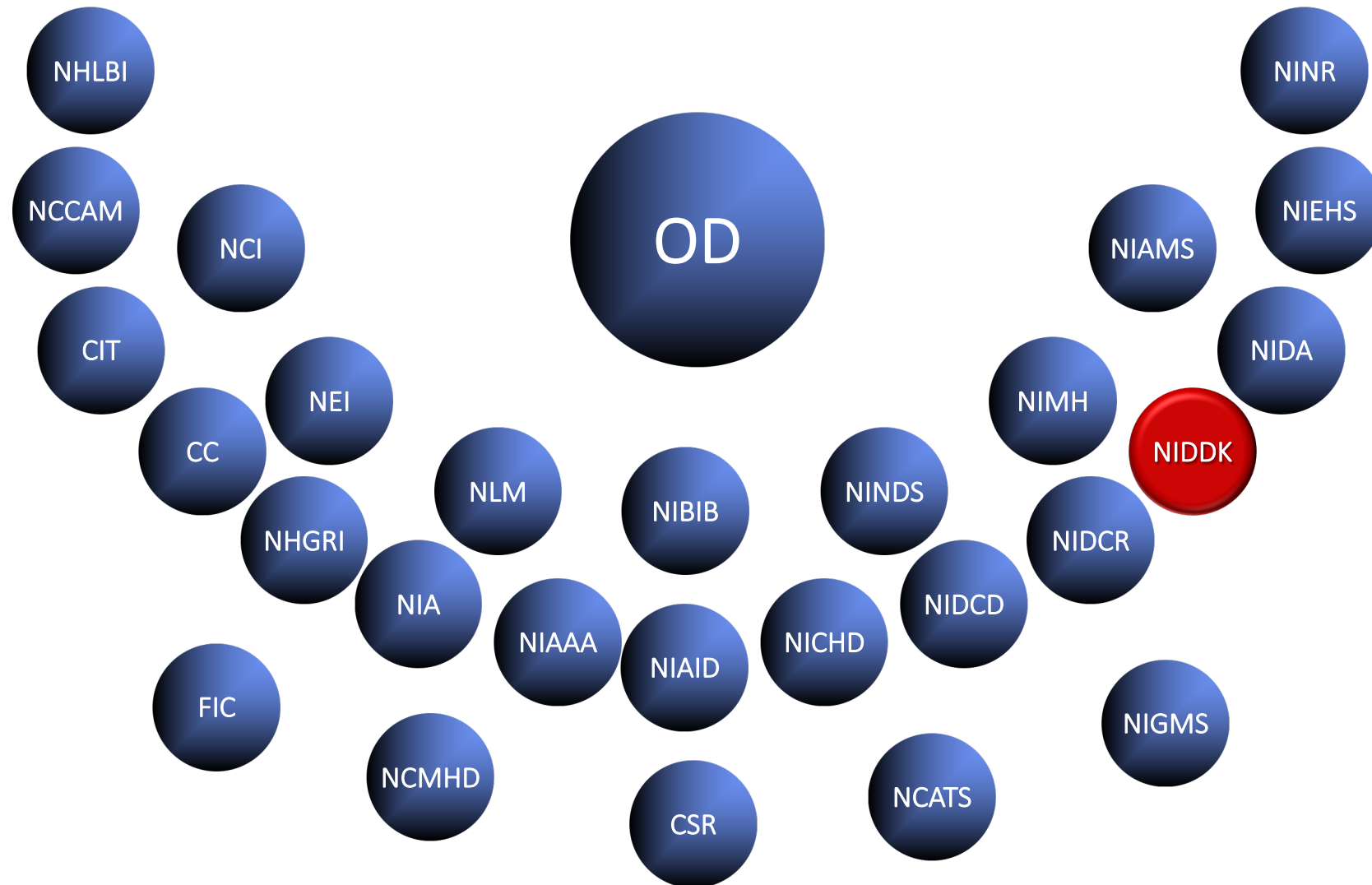


Happy to serve as point of
Contact: Robert.rivers@nih.gov

How the NIH works....



NIH Consist of 27 Institutes and Centers



The NIDDK Research Mission

To support and conduct research to combat diabetes and other endocrine and metabolic diseases, liver and other digestive diseases, nutritional disorders, obesity, and kidney and urologic and hematologic diseases.

- Chronic
- Common
- Consequential
- Costly

Background

- Diabetes affects 34.2 million people in the U.S. and 90-95% have type 2 diabetes with obesity being a major risk factor
- Health disparity populations are **disproportionately impacted** by the obesity and type 2 diabetes epidemics
- The **complex relationships** between health, economic, health care, and various socioecological factors may **powerfully influence** prevention and intervention success
- **Novel approaches are needed**



Glossary of (some) Acronyms

IC—Institute/Center

CSR—Center for Scientific Review

SF 424 (R&R)—Standard Form 424 (Research and Related)

PHS 2590—Public Health Service Form 2590

FOA—Funding Oppportunity Announcement

IRG—Integrated Review Group

SRO/A—Scientific Review Officer/Administrator

PO—Program Officer

eRA—Electronic Research Aministration

Undergraduate Opportunities

The NIDDK's STEP-UP Program



To diversify the pool of undergraduates, graduates, postdoctoral and faculty pursuing research careers in biomedical, behavioral and social science research disciplines

by

Providing intensive, high quality summer research experiences for underrepresented minorities, disadvantaged and disabled persons.



- Outreach Target is Expanding Diversity
- GPA of 3.0 higher
- Desire to Explore Biomedical Research
- Interest in the Sciences



Overview of STEP-UP Program



- Program Types
 - Application System
- Program Components
 - 8 to 10 weeks intensive summer research experience
 - Follow-up Mentoring for 9 Months
- Research Presentations
Visit: <http://stepup.niddk.nih.gov/>

Research through the STEP-UP

Students are placed in research labs/projects near their home

Goal is to provide a supportive environment to explore research opportunities

Mentors – Always searching for additional mentors throughout the state and country

Applying

Personal Statement – *Why do you want to do research?*

Transcript

2 Letters of Recommendation (not from family friends or Ministers)

Activities and Employment (High School)

Undergraduate Research during COVID

- Watch this space
- In addition to STEP-UP programs are revising plans and setup
- Focus on Data Analysis
- Remote Research Opportunities

More Opportunities

A search input field with a magnifying glass icon on the left side.

Google Search

I'm Feeling Lucky

Graduate and Post-doc Opportunities

Solicitations: NIH Guide

“Parent” announcements—investigator-initiated/unsolicited; mechanism specific

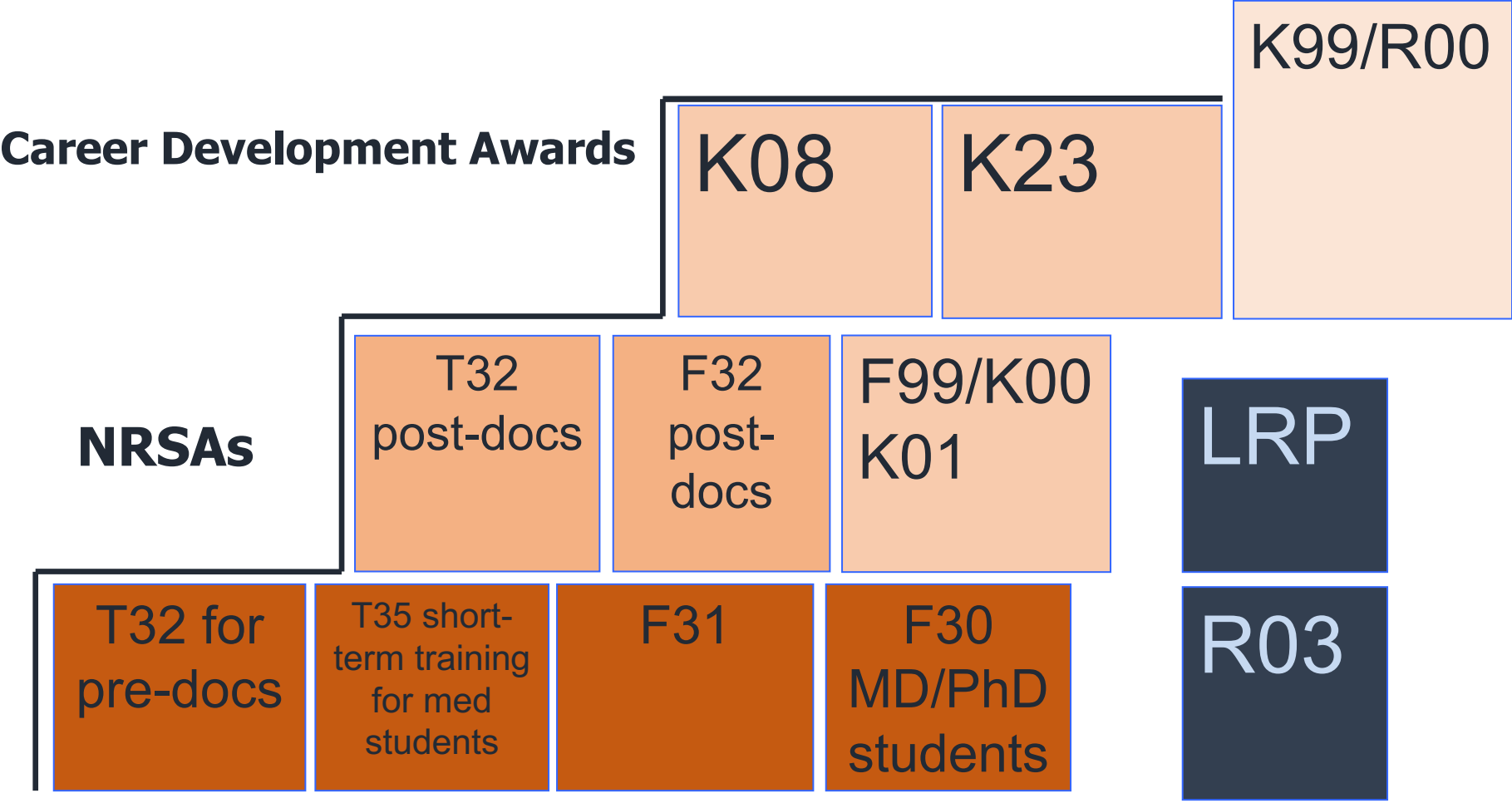
- R01, R03, R21s

Special initiatives--solicited

- RFA: Request for Applications
Very specific research area, \$ set-aside, special review panel, one submission date
- PA: Program Announcement
More general, no \$ (usually), no special review panel (usually)

<http://grants.nih.gov/grants/guide/index.html>

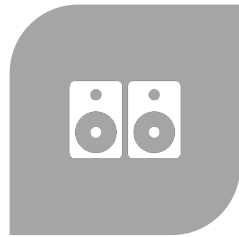
Training and Career Programs



Finding Funding Opportunities



TALK WITH YOU MENTOR



THE SPEAKER



SIGN UP TO THE NIH GUIDE



USE NIH REPORT TOOL



[HTTPS://PROJECTREPORTER.NIH.GOV/](https://projectreporter.nih.gov/)

Specific Aims

- **FOCUS**
- Clear statement of testable hypothesis
 - Not so good: “we hypothesize that CKD causes cardiovascular disease and early mortality”
 - Better: “we predict that individuals with CKD are more susceptible to the development of atherosclerosis due to uremic solutes directly activating M1 macrophages and promoting inflammation-induced plaque deposition”
- Specific aims support/refute question
- Did I mention focus?

Significance and Innovation

- Sets the stage--get the reviewers “out of bed.” **Do not write it as a review article**
- The overall research question should pass the So What? test. Just because something is “not known” doesn’t necessarily make it significant.
- Highlight controversies and critical gaps and how they will be addressed by the proposed experiments
- A visual model can help—particularly basic, mechanistic studies

Preliminary Data

- Relevant to proposed research plan
- Demonstrate feasibility/availability of resources and critical reagents
- Incorporating into relevant Aim in Research Strategy

Approach

- The easy part! Just fill-in the blanks!
- No need for gory details
- Present expected/alternative outcomes and interpretations
- **Consider not only technical pitfalls and alternatives, but conceptual ones as well (what if I'm wrong?)**

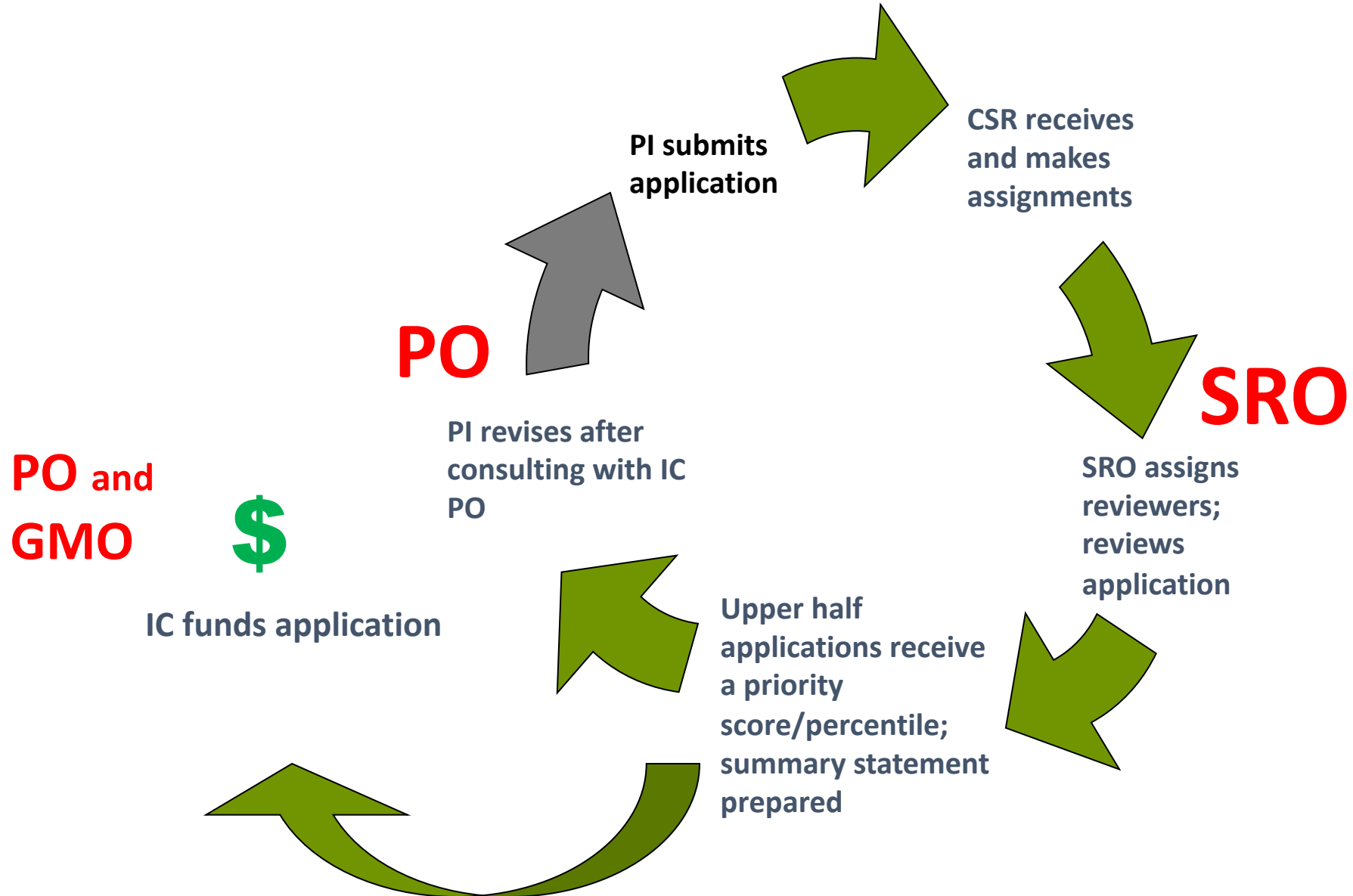
Developing Strong Applications

- Clear and concise language
- WHY????
- Limitations and approach
- Responsiveness
- Track Record and Publication history

Etc

- Do not give these sections short shift!!
- Animals: address all five points, particularly numbers needed (power analyses)
- Human subjects: pay attention to inclusion of gender/minority/children
- Biohazards: don't forget!
- Monitoring plans: required for Phase III.
- Best reference

Know who to talk to when



Pre-doctoral Fellowships – F31

- Predoctoral students to obtain **individualized, mentored** research training from **outstanding faculty sponsors** while conducting **dissertation research** in scientific health-related fields that are relevant to the missions of the participating NIH institutes and centers.
- Applicant fellows must be citizens or non-citizen nationals of the United States, or must have been lawfully admitted to the United States for Permanent Residence.
- Currently enrolled in a Ph.D. or equivalent research degree program, a formally combined M.D./Ph.D. program; or other combined professional doctoral/research Ph.D. graduate program in the biomedical, behavioral, health services, or clinical sciences.
- The applicant must be at the **dissertation research stage** of training at the time of award and must show evidence of high academic performance in the sciences, and commitment to a career as an independent research scientist.
- As an applicant, the candidate **together** with his/her sponsor(s) and institution are jointly responsible for planning, directing, and executing the proposed project.
- The fellowship award provides an annual stipend, an allowance for tuition and fees, and an annual institutional allowance.

Follow the Money

- Application Success Rates
- https://report.nih.gov/success_rates/index.aspx

Career Development

- A key component of the supplement is ensuring that the candidate will receive the necessary training and opportunities for successful independent research career. The plan should be unique to the candidate and meets all requirements.

Proposed Research

- The research plan should be within the framework of the currently funded DK parent award. Contact the Program Officer of the parent award to make sure the research proposed for the supplement is within scope.



The NIDDK supports several types of K awards:

- If you are an M.D. and are doing basic research, you are eligible for a [K08](#).
- If you are a clinician and you interact directly with patients for your research (not just to fulfill your commitment to your department), you are eligible for the [K23](#) award.
- If you are a Ph.D. or a non-board eligible M.D., you can apply for a [K01](#).
- If you are a non-biomedically trained Ph.D. (mathematics, organic chemistry, etc.) moving into biomedical research, you are eligible for a [K25](#).
- The NIDDK does not support the K02 award for more senior scientists.
- The Pathway to Independence award ([K99/R00](#)) is a two-phased approach to shortening the post-doctoral period for outstanding fellows, and it is open to non-U.S. citizens.

- **We encourage K-awards in all areas of research supported by the NIDDK. All mentored K awards require that the awardee:**

- Be a U.S. citizen or permanent resident of the United States (does NOT apply to K99/R00)
- Be located at a U.S. institution
- Have preliminary data on which to base his/her hypothesis-driven 3 to 5-year research project in an area of interest to the NIDDK
- Have at least one mentor
- Devote 9 calendar months (75 percent) worth of effort to the K award

- **K Kiosk:**

- <https://researchtraining.nih.gov/programs/career-development>

Each grant is assigned 3 reviewers: primary, secondary and reader

Reviewers comment and score on the five “core” review criteria; assign an overall impact score for discussed applications (not necessarily average of criterion scores)

All members vote on each application

Unsure about the Right Mechanism – call your PO

 Provide advice as to IC relevance of project and right grant mechanism

 Insight into summary statements

 Help you work through decisions

Revise or new
Renew the grant or new
RFA or submit an R01?

 Advocate within NIH

 Help you find more \$

 Initiative development


Due Dates

- **F Series Fellowship**
 - April 8, August 8, & Dec 8
- **K Series – Research Career Developments**
 - February 12, June 12, & October 12



Research Funding Opportunities

NIH Reporter


**Research Portfolio Online Reporting Tools
(RePORT)**


Search



HOME | ABOUT RePORT | FAQs | GLOSSARY | CONTACT US

QUICK LINKSRESEARCHORGANIZATIONSWORKFORCEFUNDINGREPORTS

Home > [RePORTER](#) > Query Form

Login | Register | [RePORTER Manual](#) | System Health: ■ GREEN


NIH RePORTER
Version: 7.40.0

[About RePORTER DATA](#) | [FAQ](#) | [ExPORTER](#) | [RSS of Newly Added Projects](#)  


[FIND PROGRAM OFFICIALS OR SIMILAR PROJECTS](#)


QUERYBROWSE NIHMATCHMAKERSEARCH PUBLICATIONS BETA


[SUBMIT QUERY](#) [CLEAR QUERY](#)


Fiscal Year (FY):  [SELECT](#)
Current FY is 2020


RESEARCHER AND ORGANIZATION


Principal Investigator (PI) / Project Leader:  ,
(Last Name, First Name) Use "%" for wildcard in PI names
[Enter several PI/Project Leader names OR PI Profile IDs](#)


City: 
Use "%" for wildcard


Organization:  [LOOKUP](#)
Please enter at least 3 characters to use Lookup.
☒ Contains ☐ Begins with ☐ Exact


State:  [SELECT](#)

Country:  [SELECT](#)


Department Type:  [SELECT](#)

Congressional District:  [SELECT](#)


DUNS Number: 

Organization Type:  [SELECT](#)

TEXT SEARCH

Text Search (Logic): 

☒ [And](#)
☐ [Or](#)
☐ [Advanced](#)

[Search in](#) 
☒ Projects
☐ Publications
☐ News

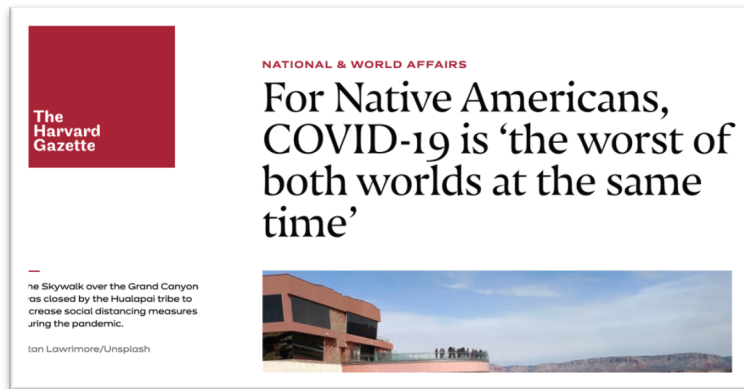
[Limit Project search to](#)
☐ Project Title
☐ Project Terms
☐ Project Abstracts

[Limit Publication search to](#)
Start Year
End Year

Characters left: 2500

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

Rapid Acceleration of Diagnostics (RADx) Underserved Populations (UP)



The Striking Racial Divide in How Covid-19 Has Hit Nursing Homes

Homes with a significant number of black and Latino residents have been twice as likely to be hit by the coronavirus as those where the population is overwhelmingly white.

Rural America Could Be the Region Hardest Hit by the COVID-19 Outbreak



Black Americans Face Alarming Rates of Coronavirus Infection in Some States

Data on race and the coronavirus is too limited to draw sweeping conclusions, experts say, but disparate rates of sickness — and death — have emerged in some places.

Many Who Need Testing For COVID-19 Fail To Get Access

April 3, 2020 · 5:00 AM ET

COVID-19 in Prisons and Jails in the United States

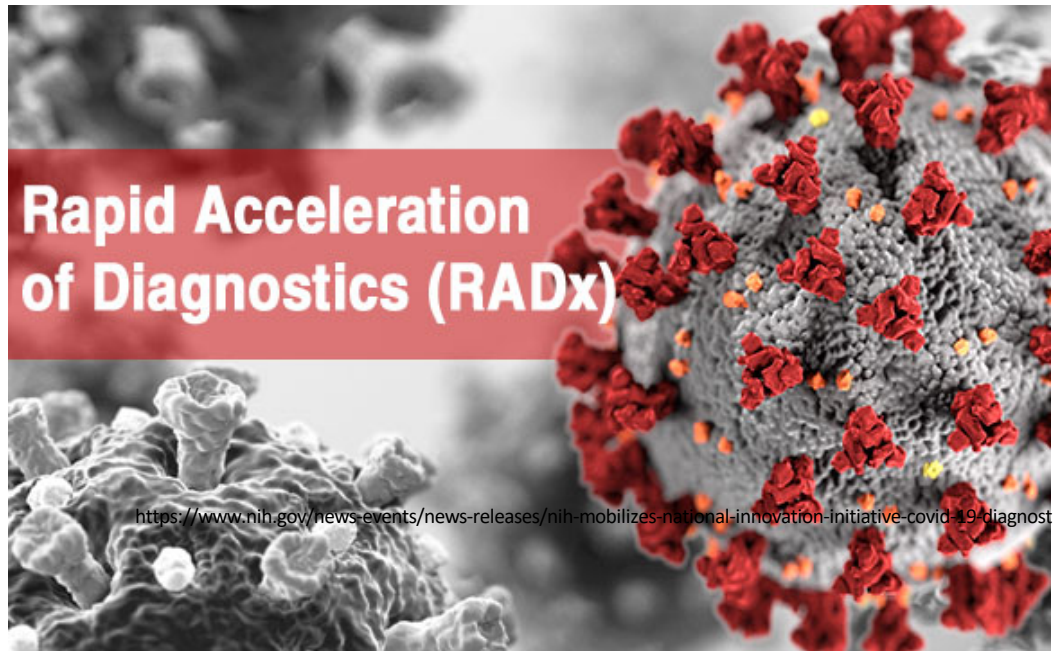
Laura Hawks, MD^{1,2}; Steffie Woolhandler, MD, MPH^{2,3}; Danny McCormick, MD, MPH^{1,2}

» [Author Affiliations](#) | [Article Information](#)

JAMA Intern Med. Published online April 28, 2020. doi:10.1001/jamainternmed.2020.1856

Rapid Acceleration of Diagnostics (RADx) Initiative

Signed into law, April 24, 2020



Supplemental Appropriations Language:

*...not less than **\$1,000,000,000** shall be transferred to the “National Institutes of Health—Office of the Director” to **develop, validate, improve, and implement testing** and **associated technologies**; to accelerate research, development, and implementation of **point of care** and other **rapid testing**; and for **partnerships** with governmental and non-governmental entities to research, develop, and implement the activities outlined in this proviso...*



RADx-UP: Phase I

- **Four FOAs:**

1. Notice of Special Interest (NOSI): Limited Competition for Emergency Competitive Revisions for Community-Engaged Research on COVID-19 Testing among Underserved and/or Vulnerable Populations ([NOT-OD-20-121](#))
2. Notice of Special Interest (NOSI): Emergency Competitive Revisions for Community-Engaged Research on COVID-19 Testing among Underserved and/or Vulnerable Populations ([NOT-OD-20-120](#))
3. Notice of Special Interest (NOSI): Emergency Competitive Revisions for Social, Ethical, and Behavioral Implications (SEBI) Research on COVID-19 Testing among Underserved and/or Vulnerable Populations ([NOT-OD-20-119](#))
4. Emergency Awards: RADx-UP Coordination and Data Collection Center (CDCC) (U24 Clinical Trial Optional; [RFA-OD-20-013](#))

2-year Projects

4-year Project



For Application Resources: <https://www.nih.gov/research-training/medical-research-initiatives/radx/funding>

Thanks!

Rob Rivers, PhD

Robert.rivers@nih.gov

@robclayrivers

