Advice for Early Stage Investigators

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Advice for Early Stage Investigators

- Know the purpose the program you will apply for, and the review criteria; make sure the application addresses them completely
- Tell Reviewers what they need to know to favorably evaluate your application
- Use the data to better understand your choices and chances
- Avoid the R21 Activity Code while still an Early Stage Investigator
- Build Networks

Know the purpose of the program and its review criteria

Funding Opportunity Title

Mentored Patient-Oriented Research Career Development Award (Parent K23)

"The purpose of the NIH Mentored Patient-Oriented Research Career Development Award (K23) is to support the career development of individuals with a clinical doctoral degree who have made a commitment to focus their research endeavors on patient-oriented research."

Funding Opportunity Title

NIH Research Project Grant (Parent R01)

"The NIH Research Project Grant supports a discrete, specified, circumscribed project in areas representing the specific interests and competencies of the investigator(s)."

Review Criteria - K23

- **Candidate**

- **Career Development Plan/Career Goals and Objectives**

- **Research Plan**

- **Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)**

- **Environment & Institutional Commitment to the Candidate**

  ✓**State Long-term and Immediate Career Objectives**

  ✓**Explain how Career Development Plan, Research Plan, Mentors and Institution will help fulfill career objectives**

  ✓**Letters of support must express commitment to fulfilling candidate's career objectives**

Review Criteria – R01

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

  ✓**Focus of review criteria is the research project**
    - **Approach, Significance, Innovation**
    - **These three criteria are weighted most heavily**
  ✓**Other criteria assess how the research objectives are advanced.**
    - **Investigator(s), Environment**

Tell Reviewers what they need to know to favorably evaluate your application

- Explain in the application:
  - How the project is significant and innovative
  - How the project fulfills the objectives of the program

- If there are controversies or conflicting literature in the field, it must be discussed in the application (scientific premise) – explain how your research will inform the discussion.

- Don't ignore limitations in the application in hopes that reviewers don't notice them.
  - It is better to make the argument for your chosen solution
  - Assures reviewers you have thought of (most) everything

Use the data to better understand the scientific landscape around your application

- Look for funded grants similar to your own

- "Futurecasting"

- Talk to other successful applicants about their experiences and strategies

Finding Funded Grants…

NIH RePORTER
Version: 7.40.0

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QUERY | BROWSE NIH | **MATCHMAKER** | SEARCH PUBLICATIONS ᴮᴱᵀᴬ

Use Matchmaker to find similar projects and program officials

Enter abstracts or other scientific text and Matchmaker will return lists of similar projects from RePORTER or program officials associated with those projects. These matches are based on the terms and concepts used in the submitted text. Up to 15,000 characters are permitted.
Matchmaker summarizes the projects by the program official, institute or center, review panel, and activity code.

▶ VIEW TUTORIAL

Enter your Text:

Background: Surgery for hip fracture can be devastating for older adults, with complications including delirium, increased risk of dementia, and inability to walk. As an anesthesiologist and clinician-scientist, I have focused on reducing delirium after surgery. In this proposal, I will build the foundation for a research career focused on the broader goals of reducing neurocognitive and functional decline after surgery in older adults. I will specifically focus on the role of optimizing intraoperative cerebral perfusion, because of pilot data suggesting that reduced cerebral perfusion during surgery is a modifiable risk factor for delirium. Career Development Plan: I am proposing specific educational goals that address gaps in my current knowledge. First, I will develop expertise in cerebrovascular physiology and monitoring under the mentorship of Dr. Koehler, an expert in cerebral blood flow regulation. Second, I will develop expertise in neurocognitive testing and dementia assessment under the mentorship of Dr. Kamath, a neuropsychologist, and Dr. Gottesman, an expert in dementia adjudication in the research setting. Third, I will gain expertise in clinical trials and measuring functional status through the mentorship of Drs. Sieber and Neuman (experts in perioperative clinical trials in older adults), and Dr. Walston (a geriatrician with expertise in functional status). Finally, I will develop as a leader through interactions with my mentors, courses, and leadership opportunities. Research Proposal: During hip fracture surgery, extreme variations in blood pressure are common in older adults, who are susceptible to cerebral ischemia and vulnerable to consequences of hypotension. However, there is no standard of care as to what constitutes adequate blood pressure

Terms will be weighted by frequency of appearance in the text above. The process is automated and confidential. The Matchmaker system does not track and store submitted text.

Characters left: 11772

CLEAR | SIMILAR PROJECTS | SIMILAR PROGRAM OFFICIALS

Matchmaker Results

Export All Projects ▼ GO

PROJECTS | PROGRAM OFFICIAL

Matching Text

Background: Surgery for hip fracture can be devastating for older adults, with complications including delirium, increased risk of dementia, and inability to walk. As an anesthesiologist and clinician-scientist, I have focused on reducing delirium after surgery. In this proposal, I will build the foundation for a research career focused on the broader goals of reducing neurocognitive and functional decline after surgery in older adults. I will specifically focus on the role of optimizing intraoperative cerebral perfusion, because of pilot data suggesting that reduced cerebral perfusion during surgery is a modifiable risk factor for delirium. Career Development Plan: I am proposing specific educational goals that address gaps in my current knowledge. First, I will

Characters left: 11772

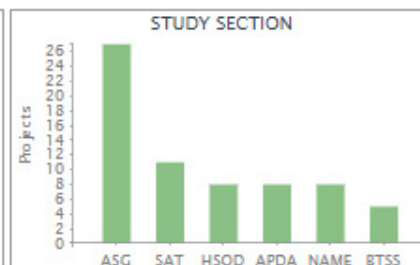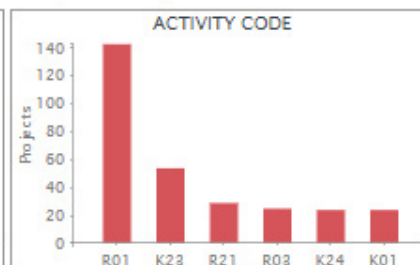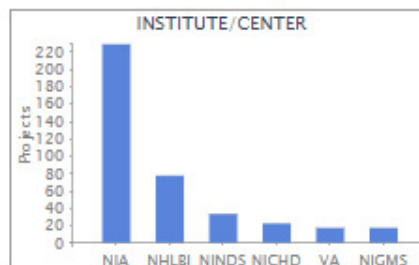Fiscal Year (FY) ❓ [Active Projects] [SELECT]
Select options begin with FY 2007.

Exclude Subprojects? ☐

[RESET] [RESUBMIT]

500 projects with similar concepts to the entered text. (500 maximum)

Click on chart labels to filter search results by the Institute/Center or Activity Code or Study Section

Click here to view detailed Charts

INSTITUTE/CENTER — Projects: NIA, NHLBI, NINDS, NICHD, VA, NIGMS

ACTIVITY CODE — Projects: R01, K23, R21, R03, K24, K01

STUDY SECTION — Projects: ASG, SAT, HSOD, APDA, NAME, BTSS

Click on the column header to sort the results

Records per page 2! ▼

1 2 3 4 ... 18 19 20

1 of 20 Next Last ▶ ▶▶

T: Application Type; Act: Activity Code; Project: Admin IC,Serial No.; Year: Support Year/Supplement/Amendment

Match Score	T	Act	Project	Year	Sub #	Project Title	Contact PI / Project Leader	Organization	FY	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
☐ 1975	5	K76	AG057020	03		MONITORING CEREBRAL AUTOREGULATION IN PATIENTS UNDERGOING TRAUMATIC HIP FRACTURE SURGERY TO IMPROVE POSTOPERATIVE OUTCOMES	BROWN, CHARLES HUGH	JOHNS HOPKINS UNIVERSITY	2019	NIA	NIA	$242,995	🗎
☐ 933	5	R01	HL092259	10		CEREBRAL AUTOREGULATION MONITORING TO REDUCE BRAIN INJURY FROM CARDIAC SURGERY	HOGUE, CHARLES W	NORTHWESTERN UNIVERSITY AT CHICAGO	2018	NHLBI	NHLBI	$360,092	🗎
☐ 720	5	K23	GM126317	02		NEUROCOGNITIVE RECOVERY FOLLOWING SURGERY AND GENERAL ANESTHESIA	VLISIDES, PHILLIP ELEAS	UNIVERSITY OF MICHIGAN AT ANN ARBOR	2019	NIGMS	NIGMS	$191,829	🗎
☐ 681	5	R01	GM116177	04		NIRS-DCS FOR MONITORING ANESTHESIA AND SURGICAL MANIPULATIONS OF CEREBRAL OXYGEN DELIVERY	FRANCESCHINI, MARIA ANGELA	MASSACHUSETTS GENERAL HOSPITAL	2019	NIGMS	NIGMS	$393,095	🗎
☐ 634	5	R01	NS100750	02		NON-INVASIVE MONITORING OF BRAIN HEALTH DURING CARDIO-PULMONARY BYPASS	CARP, STEFAN ALEXANDRU	MASSACHUSETTS GENERAL HOSPITAL	2019	NINDS	NINDS	$582,005	🗎

Avoid applying for the R21 Activity Code

- Why? Reviewers look for fit with purpose, e.g. the "high risk – high reward" aspects of the application

- Look for the stated purpose from the parent announcement:

    https://grants.nih.gov/grants/guide/pa-files/PA-16-161.html

"…*These studies may involve considerable risk but may lead to a breakthrough in a particular area, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact on a field of biomedical, behavioral, or clinical research."*

- Reviewers look for evidence that approach is "feasible"; risk is "manageable" in the hands of this investigator
    - Read: Preliminary data – not required but established investigators often provide it
    - Limited funds and time make challenges for inexperienced managers, reviewers know this
    - No benefit for Early Stage Investigators applying for the R21, so enlist established investigator to collaborate as a MPI

- If the R01 is not a choice –
    - tell reviewers how your application fits the stated purpose; how you plan to manage risk
    - look for an RFA or PAR to avoid applying for the parent announcement.
    - Reviewers will focus on RFA's scientific concepts instead of lingering on high risk – high reward
    - If you can find an R21/R33, that's almost better than an R01

- <u>Overall award rates</u> for R21s at NIA (FY19): 209/1,061 = 20%; ESIs: 42/200= 21%
    - Compare to R01: 391/2,081 = 19%; ESIs: 98/349 = 28%

Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH)
Components of Participating Organizations	National Institute on Aging (NIA)
Funding Opportunity Title	Grants for Early Medical/Surgical Specialists' Transition to Aging Research (GEMSSTAR) (R03 Clinical Trial Opti...)
Activity Code	R03 Small Grant Prog...
Announcement Type	Reissue of RFA-AG-19-...
Related Notices	● ... NOT...
Funding Opportunity Announcement (FOA) Number	

Key Dates

Posted Date	
Open Date (Earliest Submission Date)	September 02, 201...
Letter of Intent Due Date(s)	September 2, 2019
Application Due Date(s)	October 2, 2019, by 5:00 PM local time of applicant organization. All applications allowed for this funding opportunity announcement are due on these dates. No late applications will be accepted for this funding opportunity announcement.

Targeted to Clinicians;
Receipt Date: Yearly in October
Award rate in FY19: 53% !!!

Build your Networks !!!

- Don't try to be too self-reliant
  - Many will want to help you, so if the first person does not respond, keep asking until you find your partners

- NIA Program Staff get *much* email, are often on travel, reading email on tiny screens. You may have to send a reminder email to get a response.
  - We do want to speak to you, it's the fun part

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