Career Development
“K” Awards

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Overview

What is a K Award?

Is a K Award right for me?

What are the funding rates of K Awards vs other NIH grants?

What are the steps to preparing a K Award?

What are the pieces of a K Award?

How can I maximize my success?
What is a K award?

Targets new investigators (have not yet attained R01 level funding)
- Early career investigator
- Investigator new to a field of study
- Clinician to scientist

Provide funds for 75% salary, training, and research

Assist the new investigator in developing an independent research career (i.e., investigators who will go on to earn R01s and have a continually funded lab)

5 years of funding ~$100K salary support and $25-50K research funds per year
Why does NIH offer Ks?

To invest in the next generation of scientists.
NIH Research Training and Career Development Timetable

Approx. Stage of Research Training and Development

- Graduate/Medical Student
- Postdoctoral
- Early Career
- Middle Career
- Senior Career

Mechanism of Support

- Predoctoral Institutional Training Grant (T32)
- Predoc Individual NRSA (F31)
- Predoc Individual MD/PhD NRSA (F30)
- Postdoc Institutional Training Grant (T32)
- Postdoctoral Individual NRSA (F32)
- Mentored Research Scientist Dev Award (K01)
- Mentored Clinical Scientist Dev Award (K08)
- Mentored Patient-Oriented RCDA (K23)
- Mentored Quantitative RCDA (K25)
- Independent Scientist Award (K02)
- Midcareer Investigator Award in Patient-Oriented Research (K24)
- Senior Scientist Award (K05)
What are the types of K awards?

**K01 – Mentored Research Scientist Dev Award** – junior scientist wishing to launch independent research career

**K02 – Independent Research Scientist Dev Award** – for early to midcareer scientists requiring period of intensive research

**K07 – Academic Career Development Award** – junior scientists who wish to enhance the educational or research capacity at the sponsoring institution.
What are the types of K awards?

K08 – Mentored Clinical Scientist Research Career Development Award – junior scientist with a clinical doctoral degree (e.g., MD, clinical psychologist, PharmD, nurse, dentistry)

K22 – Career Transition Award for post-docs and early career in transition to independent scientists

K23 – Mentored Patient-Oriented Research Career Development Award – junior scientist with a clinical doctoral degree
What are the types of K awards?

K25 – Mentored Quantitative Research Career Development Award – junior scientist in quantitative sciences or engineering.

K43 – Emerging Global Leader Award (junior scientist paired with senior scientist in low income country)

K76 – Emerging Leaders Career Development Award (junior scientist focused on making transformative change to healthcare)

K99 – NIH Pathway to Independence (post-docs in transition to faculty, new initiative, 2 phase award, phase 2 requires R01 application and...
How do I know which one is for me?

The NIH’s K Kiosk

For each mechanism, review the list of institutes that have program announcements to see if one is right for you.

Talk to a Program Officer (PO) – but not before you have reviewed all the info on NIH website and PA.

In general, never ask PO, mentor, or anyone else for info that can be found on the NIH website.
Things to consider

Does my training background qualify?

Am I within the cut-off of time since receiving doctoral degree?

Does my target institute offer this type of K?

Review all eligibility criteria in the PA to be sure you qualify.
Who needs a K?

An early career academic who would like to launch a **federally funded program of research**

Committed to having research be a significant part of career
Does the funding climate make you feel like this?
R Grant Success Rates 2017

R01 – 16.7%
R21 – 13.5%
R34 – 17.1%
R03 – 18.5%

This is not best place to start if you are a new scientist.
K Award Success Rates 2017

K23 – 34%
K01 – 32%
K02 – 56%
K07 – 15%
K08 – 44%
K99 – 23%

Go to...
http://report.nih.gov/success_rates/
To find success rates by institute and K type.

This is your pool!
WHAT ARE THE STEPS TO PREPARING AND APPLYING?
Preparing to apply for a K

Identify the theme of your program of research

Get CV up to date & have mentor review publications and prior grant activities

Get publication record to competitive level

- First author pubs that are data-based
- Find out norms for acceptable # of pubs in your field (lower bar if you have a clinical degree, higher bar if you don’t)
- You should have pubs in the area of your proposed program of research
Preparing to apply

Confirm the appropriate type of K and institute (NIMH, NHLBI, NCI, etc)

Identify the institute program officer

Invaluable as a source of information on the application process, fundability of your research project, assistance with application process, study section assignment
Preparing to apply

Find templates
  – Freedom of Information Act

See what your target institute is funding
  – NIH REPORTER is a searchable database of federally funded biomedical research projects.

Chat with PO about whether topic is of interest
Other helpful hints in preparing…

Take a grant writing course

Help a senior investigator write a grant

Read other people’s grants

Carve out the time to do your writing

Plan 6-12 months in advance
PREPARING YOUR APPLICATION
The Proposal

Candidate Section
Specific Aims
Research Plan
Environment Statement
Career Development/Training Activities
Training in the Responsible Conduct of Research
Mentor Letters
Letters of Recommendation (former mentors)
Institutional Commitment Letter (dept chair)
Planning Ahead

Submission dates: Feb 12, June 12, Oct 12

– Budgets need to be finalized 2 weeks in advance
– Electronic submission, is their admin support you can tap?
– Letters from mentors
  • Primary mentor should be selected first thing
  • Approach prospective mentors well in advance (no less than 2 months and sooner the better).
– Planning should be at least 12 months in advance
– Writing should be at least 6 months prior to submission deadline
– If you feel rushed, push your deadline back
Review Criteria Issues

Scientific merit and quality of proposed application as determined by peer review

Relevance of the proposed career development program, prior training, and commitment of the applicant to research

Relevance to program priorities

Availability of funds
Mentor team

Primary mentor along with 2-4 mentors

*Funded investigators* who provide a *unique* expertise and training experience that maps onto the areas reflected in the research and training plans.

Experience mentoring a K is important for primary mentor
Finding a primary mentor

Should have a program of research in field

Must have NIH funding (R01)

Should be at your university

Not someone you have already worked with for many years
Approaching a professor you don’t know to be your primary mentor

If they aren’t in your dept, consider that faculty typically have to prioritize mentorship in their own depts.

What do you have to offer?
Mentor-mentee relationship is a two-way street.
Offer to analyze/write up some of their data.
Attend their lab meetings.
Participate in their work.

Find out how much time they have available. Is it enough?
How do I pick the mentor team?

Their expertise
Their track record mentoring
It’s a partnership
  – Have you established a working relationship?
Their relationship with an NIH institute
What are you looking for?
What do I ask of a mentor?

A letter describing you as an excellent candidate, must be evident that the mentor is knowledgeable of and involved in proposal and your training input on proposal.

Willingness to read multiple drafts if given advance notice.

A training experience what can this person do to help you develop your program of research? Teach you a skill/technique? Collaborative activities? Writing projects?
Hints about Mentors

Use your contacts to find the right mentors

Be very clear and realistic about expectations.

Learn the norms:
  – Talk to others who’ve had that mentor
  – How much time/training can I expect?
  – What is this person’s mentorship style?

Be very aware of the busy schedules of mentors
  – Are there regular lab meetings, journal clubs, or other events that I can attend for contact with that mentor?
  – Is there any way that my training can assist their productivity?
Candidate statement

An important part of your application
- Must match the research proposed

What is your Program of Research?
- Think about the next 10 years
- The broad question that excites you the most
- How did your past experiences lead to this?
- What is the initial step in that program?

Tell the story of your intellectual journey

They are looking for the next rock star. Is it you?
Your program of research

This stone is your K study

Your K is prelim data for this study
Common pitfalls overall

Lack of focus is biggest problem for new investigators.

There is a tendency to try to “solve the world’s problems” in a single application.

Disconnects between Candidate, Training Plan, Mentors, Aims, and Research Plan.

Signs of lack of independence-- too close to mentors work, most pubs with that mentor.
Common pitfalls in training plan

Training included for a skill that isn’t needed to do the proposed work (e.g., “I always wanted to learn SEM so I’ll throw that in there.”)

Way too much or way too little

Vaguely described training experiences (e.g., if you are taking courses, name them and when they are offered).

Training for something you’ve already been trained in.
Common pitfalls research plan

Major design flaws

Insufficient statistical power

Imprecise measures (dependent variables)

Not clear you can recruit the needed population for this or future studies

The data would not be sufficient to support the next step you have described in the research

Scope too big for budget (comes off as naïve and a concern that mentors didn’t flag it.

“Me too!” study – very similar to work that’s already out there but with one aspect changed. It’s perceived as a way to play it save and may take a hit on innovation.
Common pitfalls on mentor team

Inexperienced mentors

Problems in application that should have been caught by a mentor is tip off that mentors didn’t really read it

Mentorship plan doesn’t seem realistic or that mentors are on board (no mention in the mentor letters)

Redundant mentors (e.g., two qualitative experts)
Common mistakes by investigators

Rush job--- just want to submit it as quickly as possible to escape the stress of the endeavor (“I’m submitting it no matter what, let the chips will fall where they may!”)

Research idea is undercooked.

Proposal hasn’t been reviewed enough by mentors and it shows.

Doesn’t appear to have mastered an understanding of the literature.

Doesn’t respect reviewer criticism---perceives it all as unfair or reviewer incompetence.

Wants to write a K but ambivalent about a research career
The bottom line

You need to have:

- a good idea
- a significant issue
- preliminary data
- a well crafted approach
- training needs that match the work
- a training plan that matches training needs
- a mentor team that matches training plan
- a supportive environment
Helpful hints

The entire grant is a package, all pieces should fit together logically, with every aspect consistent with your overall program of research.

Review as many templates as you can.

Allow plenty of time to get feedback from others.

- Don’t make your deadline someone else’s problem.
- Find readers who’ve sat on study sections and/or have well-funded programs of research. If they aren’t your mentors, can you offer something in return?

Get feedback from as many people as possible, while being respectful in how you approach people.
Bad news

K is the hardest, most time consuming grant you will ever write.
Good news

Getting it funded will open up time to spend on the next grant applications.