

Applying for an NIH Career Development Award

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What is a K Award?

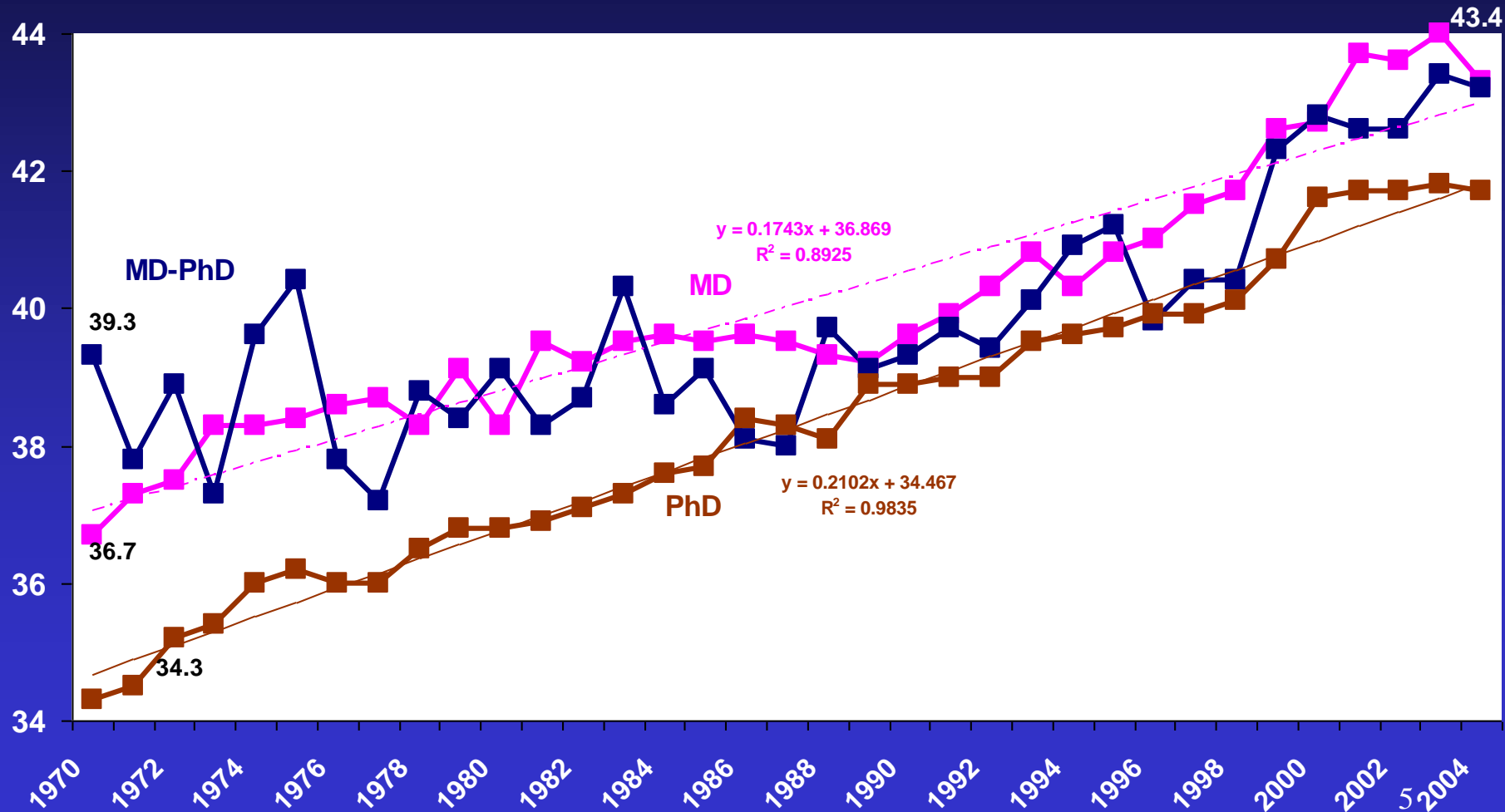
- NIH Career Development Award (CDA) providing up to 5 years of investigator support
- Types:
 - K01 Mentored Research Scientist CDA
 - K08 Mentored Clinical Scientist CDA
 - K23 Mentored Patient-Oriented Research CDA
 - K25 Mentored Quantitative Research CDA
- Career Award Wizard:
<http://grants.nih.gov/training/careerdevelopmentawards.htm>

Who should apply?

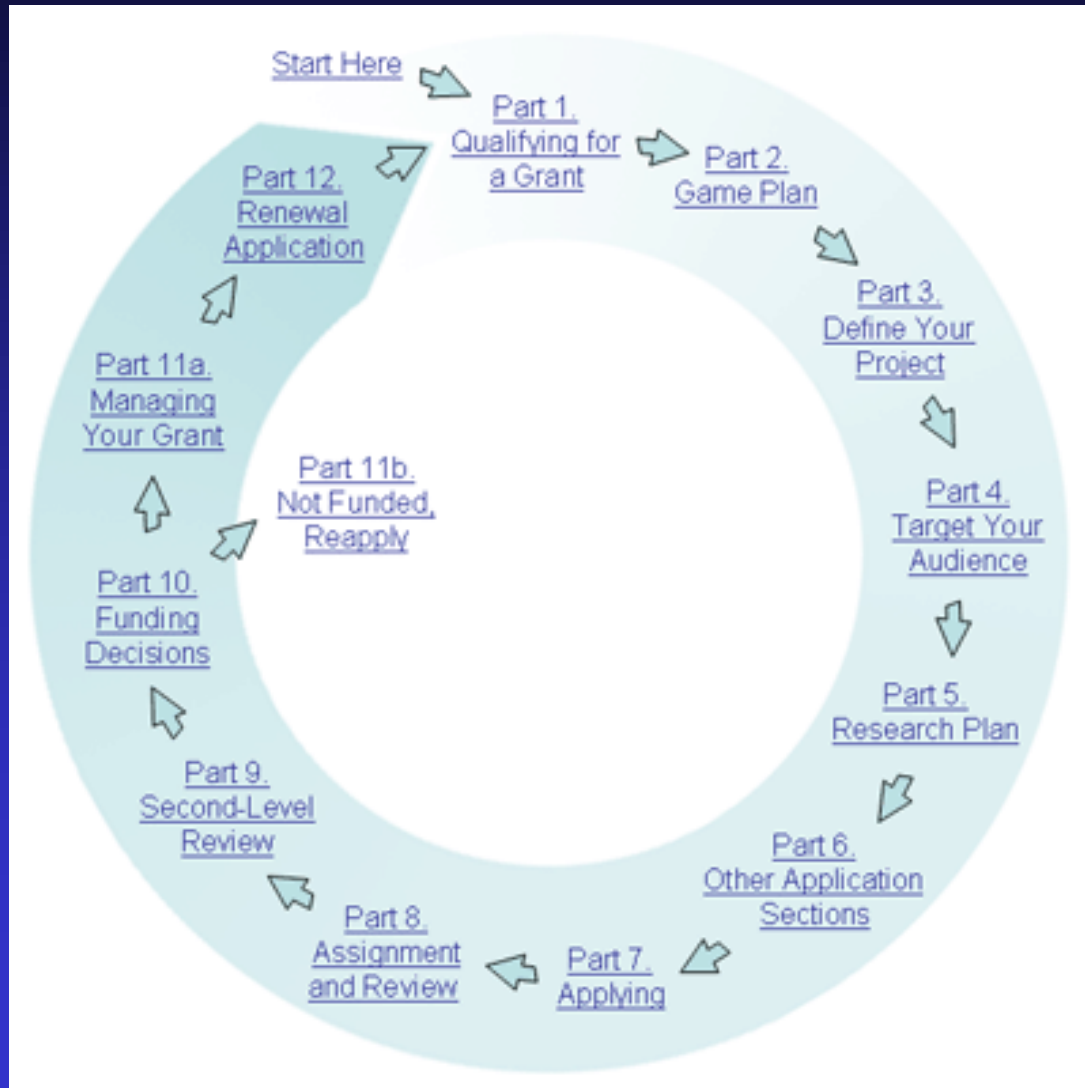
- Do you want to do research?
- As the majority of your career?
- The path to a research career

T32 → K Award → R01

Average Age of New Investigator at Initial R01 Equivalent Award



NIH Grant Cycle



3 Major Changes from the Past

- Electronic submission
- One resubmission (instead of 2)
- 12-page research plan (from 25-page)

When to apply

- Do the math and apply early: If it takes two cycles to get funded, the minimum time from 1st submission to funding is generally 18 months.
- When you (or your mentor) has applicable preliminary data and abstract presentations.
- Long before you absolutely need the money.

Deadlines and Dates to Remember

	Cycle 1	Cycle 2	Cycle 3
Due Dates*	12-Feb	12-Jun	12-Oct
AIDS-related Due Dates	7-May	7-Sept	7-Jan
Scientific Merit Review	June-July	Oct-Nov	Feb - Mar
Advisory Council Review	Sep - Oct	Jan - Feb	May - June
Earliest Project Date	Dec	April	July

*Revised applications are submitted one month later than standard deadlines, except in AIDS

An Example

T32 Fellow: 7/2005 – 6/2007	2 nd K planning Started 05/2006
1 st K planning Started 09/2005	2 nd K submission Submitted 09/01/06
1 st K submission Submitted 01/02/06	2 nd K score Received 01/2007
1 st K score Received 05/2006	K01 Started: 07/01/07

Which institute?

- Money options
- Think broadly
- Work with your mentor
- Consider funding lines (and funding details) at alternatively applicable institutes
- Consider dual agencies
- Look at FY research missions of applicable institutes

Which Institute?

- National Institute of Allergy and Infectious Diseases (NIAID) (<http://www.niaid.nih.gov/>)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA), ([http://www.niaaa.nih.gov /](http://www.niaaa.nih.gov/))
- National Cancer Institute (NCI) (<http://www.nci.nih.gov/>)
- National Institute of Child Health and Human Development (NICHD), (<http://www.nichd.nih.gov/>)
- National Institute on Drug Abuse (NIDA), (<http://www.nida.nih.gov/>)
- National Institute of Mental Health (NIMH), (<http://www.nimh.nih.gov/>)

Where should I start?


Early Steps

- Identify a mentor(s) and discuss if s/he is willing to take on this role
- Develop a detailed timeline. Stick to it!
- Carefully review the SF 424 instructions
 - Follow the Career Dev Award (CDA) instructions
- Review several successful K applications (**keep in mind NEW format starting in 2010**)
- Review several summary statements
 - You learn more from the unsuccessful applications
- Identify your contact in grants management office

NIH Research RePORTER

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

Home > RePORTER > Query Form Font Size:



[! ABOUT RePORTER DATA](#)[VIEW PROJECT BY NIH SPENDING CATEGORY](#)[i FREQUENTLY ASKED QUESTIONS](#)[New! ExPORTER BETA](#)

NIH Recovery Act Projects: [SELECT](#)

Term Search:
Logic: And Or

Hint: Multiple terms are accepted. Separate each term with a space. You may also use terms in "" (double quotes) for exact terms match.

Project Title:

Fiscal Year (FY): [SELECT](#)
Current FY is 2010

NIH Spending Category: [SELECT](#)

State: [SELECT](#)

Congressional District: [SELECT](#)

Principal Investigator:
(Last Name, First Name)
Use '%' for wildcard

[SUBMIT QUERY](#)

[CLEAR QUERY](#)

Agency/Institute/Center: [SELECT](#)
 Admin Funding

Funding Mechanism: [SELECT](#)

Award Type: [SELECT](#)

Activity Code: [SELECT](#)

Project Number:
Format: 5R01CA121298-04
Use '%' for wildcard

Study Section: [SELECT](#)

RFA/PA:
Format: RFA-IC-09-003 or PA-09-003
Use '%' for wildcard
[Funding Opportunities and Notices](#)

Public Health Relevance:

Organization:

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

What makes a good mentor?

Ideally. . .

- NIH-funded
- Has mentored other fellows through a K process
- Can highlight prior research trainees who have successfully transitioned to independent research (track record)
- Co-mentor option

Who needs to be involved?

- Mentor and co-mentor
 - Provide drafts early in the process and according to agreed upon timeline
- Biostatistician
- Grants Management
 - Check with your grants mgmt office re: timeline for sign off
- Chairman/Institutional support
 - Must be signed by person authorized to commit the institution to agreements and assurances

Obtaining Biostatistical Support

- What types of support might I need?
 - sample sizes and power calculations
 - anticipated statistical analysis (clinical or basic research)
- When do I need to request support?
 - Min. of 8 weeks prior to grant submission
- Where can I obtain support?
 - Clinical Research Program (“boilerplate”)
 - Center for AIDS Research (CFAR)
 - Discuss with your mentor

A Successful K

- \$700,000 of taxpayer money
 - The candidate
 - The mentor/team
 - The project
- Is it worth it?

What are the components?

Candidate & Research Plan (12 pgs!)

- Candidate Information (~4 pages)
- Research Strategy (~8 pages)
 - + 1 additional page for Specific Aims
- A major change from 25 pages, made January 2010

Candidate Piece Components (4-5 pgs)

- Candidate's Background
- Career Goals and Objectives
- Career Development/Training Activities
- Training in the Responsible Conduct of Research

Candidate Piece Components

- DETAILED plan of courses: course numbers, who is teaching them, their expertise and national/international recognition
- DETAILED plan for meeting with mentors: twice weekly, time/dates of intended meetings
- Scientific Advisory Board

Major Changes to Research Plan

Previous	Restructured
1. Intro to Application (resubmissions only)	1. Intro to Application (resubmissions only)
2. Specific Aims	2. Specific Aims
3. Background & Significance	3. Research Strategy
4. Prelim studies	a. Significance
5. Research Design	b. Innovation
	c. Approach (inc prelim studies)

Research Strategy

- Specific Aims (~1 page)
- Research Strategy (~8 pages)
 - Significance
 - Innovation
 - Approach (includes preliminary studies)
- Includes tables, graphs, figures, etc

Specific Aims (~1 page)

- Brief paragraph about the importance of the work (NOT the abstract verbatim)
- List of the specific aims
- Description of how this research meets the research priorities of the intended agency and the impact the results will have on research field
- Description of how the candidate/mentor team are well-poised to complete the research and transition the mentee to independent funding

Research Strategy: Significance

A. Significance (~1/2-1 page)

- Importance of problem or barrier to progress in field that project addresses
- How project will improve scientific knowledge and how results will change the field
- One of 5 major review criteria

Research Strategy: Innovation

B. Innovation (~1/2-1 page)

- How application challenges current research or clinical paradigms
- Describe novel methods or concepts
- Explain improvements or new applications of concepts, methods, or interventions
- One of 5 major review criteria

Research Strategy: Approach

C1. Approach (~6-7 pages total)

Preliminary studies

- Work in progress with preliminary data toward the specific aims
- Abstracts submitted, accepted
- Manuscripts under review (on this or other topics)
- Work of your mentors that demonstrates the feasibility of your project

Research Strategy: Approach con't

C2. More on Approach

Study design

- Most important section
- Thoughtful design of how the aims will be executed. What if you hit a roadblock? If the 1st aim fails? If your enrollment fails?
- Detailed list of deliverables: proposed titles? Meetings/dates for abstract submissions? Manuscript submissions
- Timeline for when each aim/manuscript will be complete

Scoring

- Completed by the Scientific Merit Review (Member lists are available on line)
- Scale of 1-9: A raw score of 1 is the best possible (9 the worst)
- Judged on 5 core review criteria with brief summary of strengths/weakness of each:
 - Significance
 - Investigators
 - Innovation
 - Approach
 - Environment
 - OVERALL IMPACT

READ THIS: Definitions of Criteria & Considerations for K Critiques

http://grants.nih.gov/grants/peer/critiques/k.htm#k_overall

- Overall impact
- Candidate
- Career Development Plan/Career Goals/Plan to provide mentoring
- Research plan
- Mentors, consultants, collaborators
- Environment and institutional commitment
- Protection of human subjects

But, I wish that were it...

It's not

- Do not forget or underestimate the administrative paperwork!
- This will take you more time than you think (and maybe even more time than writing the grant)

Old Version: Your TOC will look different

CDA TOC Substitute Page

Candidate (Last, first, middle): _____

Use this Table of Contents for Research Career Development Awards. Include candidate's name on each page.

RESEARCH CAREER DEVELOPMENT AWARD TABLE OF CONTENTS (Substitute Page)

	<i>Page Numbers</i>
Letters of Reference* (<i>attach unopened references to the Face Page</i>)	
Basic Administrative Data	
Face Page (Form Page 1)	1
Description, Project/Performance Sites, Senior/Key Personnel, Other Significant Contributors, and Human Embryonic Stem Cells (Form Page 2)	2
Table of Contents (this CDA Substitute Form Page 3)	_____
Budget for Entire Proposed Period of Support (Form Page 5)	_____
Biographical Sketches (<i>Candidate, Mentor[s],* Key Personnel and Other Significant Contributors* —Biographical Sketch Format page</i>) (<i>Not to exceed four pages</i>)	_____
Other Support Pages (for mentor(s) only)	_____
Resources (Resources Format page)	_____
Career Development Plan	
The Candidate	
Candidate's Background	} _____ } _____ } _____ } _____
Career Goals and Objectives: Scientific Biography	
Career Development/Training Activities during Award Period	
Training in the Responsible Conduct of Research	
Statements by Mentor, Co-Mentor(s),* Consultant(s),* and Contributor(s)*	
Environment and Institutional Commitment to Candidate	
Description of Institutional Environment	_____
Institutional Commitment to Candidate's Research Career Development	_____
Research Plan	
1. Introduction to Resubmission Application* (<i>Not to exceed 3 pages</i>)	} _____ } _____ } _____ } _____ } _____
2. Specific Aims	
3. Background and Significance	
4. Preliminary Studies/Progress Report	
5. Research Design and Methods	

Administrative Paperwork

- Electronic submission—click “Apply for Grant Electronically” from RFA to find electronic forms
- Instructions for filling in forms available at:
http://grants.nih.gov/grants/funding/424/SF424_RR_Guide_General_Adobe_VerB.pdf
- Critical instructions start on page 36
- Early submission (2 weeks prior to grant deadline) to grants management!

What Are the Components? Administrative Paperwork

- Face Page (SF 424 R&R)
- Project/Performance Site
- Abstract & Narrative
- Facilities & Other Resources (institutional)
- Key Personnel
- Biosketches
- Modified Other Support (sponsor[s])
- Budget & Justification
- Cover Page & Checklist Page

Other Components?

Support Letters

- Three letters of reference
 - NOT directly involved in the application
 - Familiar with your qualifications, training, interests
 - Should address competence and potential
 - Referees upload letters via eRA portal
- Letters of support by Sponsor and Co-sponsor
- Institutional Commitment
 - Dean or chairman of the department
- Scientific Advisory Board
 - 3-5 people who will meet yearly to assist you in monitoring your progress

Support Letters

- Among the only pieces of the application that you cannot do last minute.
REQUEST EARLY! (And nicely)
- Dated in close proximity to application deadline.
- Do not be put off if you are asked to draft these, especially for consultants and contributors. In fact, you should offer!

K Writing Timeline

4 months prior

- Identify sponsor/co-sponsor
- Make timeline and share with sponsor
- Draft specific aims
- Identify individuals for letters of support
- Register on eRA commons
- Visit Grants.gov to download instructions and appropriate electronic grant application

Timeline continued

3 months prior

- Request letters of support – references/sponsor(s)/ institutional commitment
- 1st draft – research plan/candidate statement/abstract
- Identify advisory board and request letters
- **Request all required biosketches / other support**
- Determine required biostatistical support and request assistance

Timeline continued

2 months prior

- Circulate 1st draft research plan/statement for feedback
- Revise research plan/statement and circulate 2nd draft
- Follow up on all requested letters, biosketches, other support
- Complete all administrative paperwork and budget

Timeline continued

1 month prior

- Send all administrative paperwork to grants mgmt (3 weeks prior)
- Consider sending out to an external reviewer for comments
- Finalize research plan
- Check all formatting, numbers, etc.
- Make edits requested by grants management
- The last week – diminishing returns? No!

Timeline continued

Submitting the grant

- Electronic submission using Grants.gov downloadable forms
- Include a cover letter (list names/addresses of recommenders—see instructions)
- Grants management makes final submission
- Follow up with all collaborators, mentors, letter writers, thanking them for their contribution

Once submitted:

- Follow progress on eRA Commons (<https://commons.era.nih.gov/commons/>)
- Receive your score
- Stay in touch with your project officer, get feedback before the summary statement is available!
- Plans for resubmission: 1 page introduction

Other Helpful Resources

K Kiosk (Career Award Wizard and Links to Awards):

grants.nih.gov/training/careerdevelopmentawards.htm

SF 424 R&R Instructions, including human subjects:

grants.nih.gov/grants/funding/424/index.htm

Details of New Sections and Page Limits:

enhancing-peer-review.nih.gov/docs/application_changes.pdf

NIH Office of Extramural Research (OER) Home Page

grants.nih.gov/grants/oer.htm

Take-home messages

- This is a long process to which you must be committed
- Is research your long-term plan?
- Allow adequate time— especially for things that are out of your control (biostatistical support, letters)
- Pay attention to details
- Review instructions continuously during your preparation