
How to Write a Successful NIH Career Development Award (K Award)

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Why Me?

- NHLBI – Scientific Review Office from 2005-10
lead over 65 Review Session from K to R01 to
Clinical Trails to Contract Reviews
- Conducted 18 K award Review Session
- Reviewed over 500 K awards
- NHLBI -2010 – 12 Program Officer, Office of
Research Training and Career Development,
Division of Cardiovascular Sciences – Managed
200+ grants F, K, & T

Goals

- To provide an overview of career development, progression, and advancement.
- To educate course participants about the various K mechanism.
- Tips to write a successful K Award.
- Develop a timeline for completion of the grant.
- Common pitfalls.

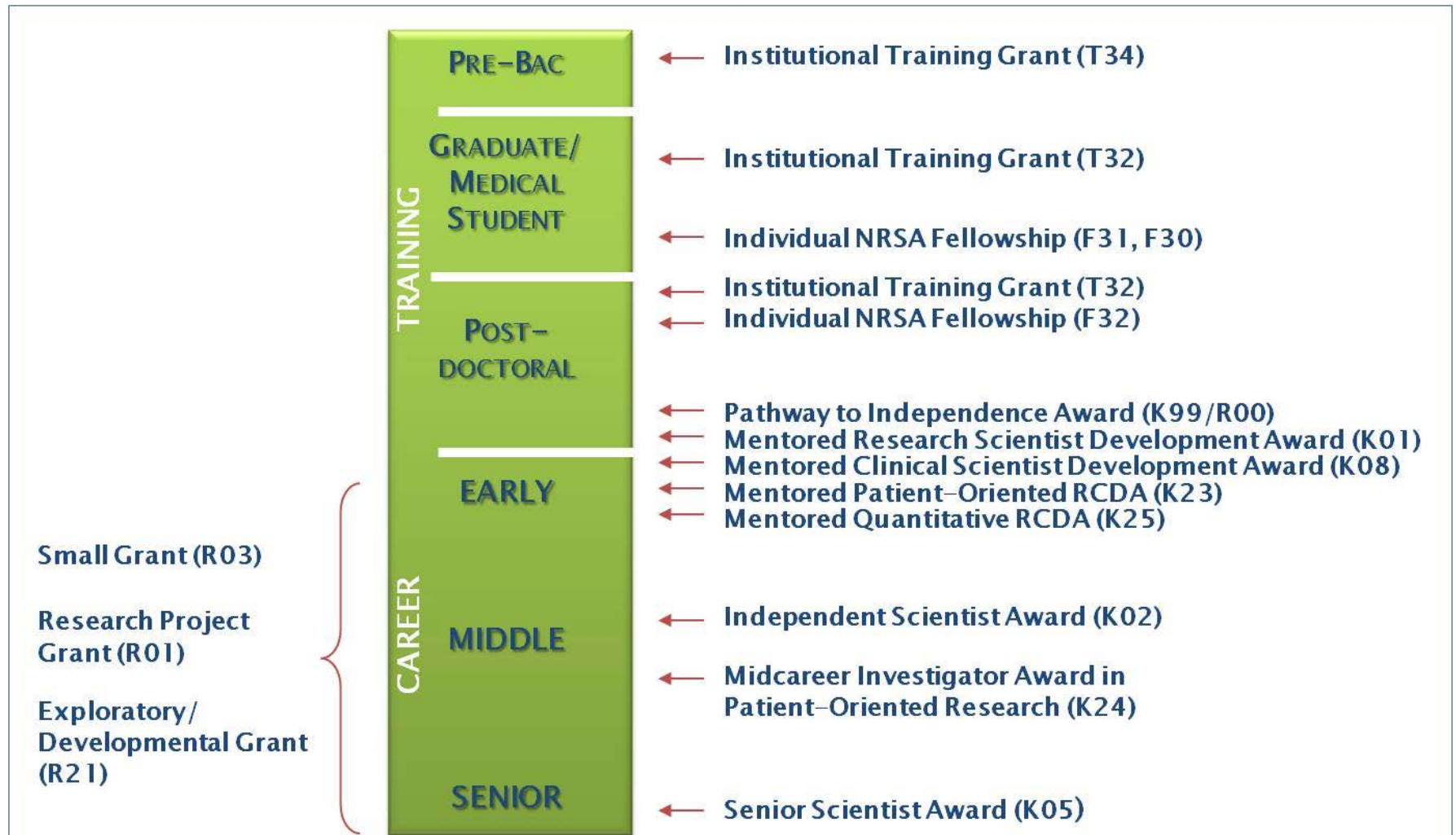


What's the Right Type of Grant?
Talk to NIH!

Types of Award Mechanisms:

http://grants.nih.gov/grants/funding/funding_program.htm!

Career Stages of Funding Programs



Graphic represents a small sample of NIH funding mechanisms available.

Mentored Career Awards

- Mentored Research Scientist Development (K01)
- Mentored Clinical Scientist Development Award (K08)
- Mentored Patient-Oriented Research Career Development (K23)
- Mentored Quantitative Research Career Development Award (K25)
- Mentored Faculty Diversity Award/Minority Serving Inst. (K01) (RFA)

FEATURES

Duration - 5 years max.

Mentor - Yes

Salary - Up to \$100,000 DC

Res. Costs - Up to \$50,000 DC

Renew - No

New Investigator Career Awards: Pathway to Independence

Mentored Research Scientist Development (K99/R00)

“Kangaroo”



FEATURES

Eligibility: < than 4 yrs post doc

Duration - 5 years max.

(1-2 years mentoring, 2-3 years
independent support)

Mentor - Yes

Initial period

Salary - Up to \$100,000 DC

Res. Costs - Up to \$30,000 DC

Independent Award

Res. Costs- Up to \$249,000 DC

Renew - No

Important – Institute & Mechanism

- Identify the *several* most likely Institutes for funding based on your specialty/scientific interests
- Where is the mentor funded
- What institutes have issued PA's or RFA's in their area
- See what Institute staff attend the same meetings as the potential PI
- Read the funding opportunity

Reading the Program Announcement (PA)

- Check to see what institute supports the PA
- Check due dates
- Check purpose and eligibility
- Dollar amount – **K23- NHLBI \$100,000**
- Commitment - 75% time
- Materials/Supplies/Consultants up to \$50,000
- Section IV Application and submission
- Section V Application Review Information
- Page limits

Outstanding NIH K Award Grant

What's it take to get funded?

What's it take?

- Time?
- Ideas?
- Candidate?
- Mentor?
- Training?
- Environment?

Some Suggestions for PI's Developing a K award

- Match idea to NIH Institute
- Select the right K & study the PA
- Know every section's requirements
- Read the Review Section
- Familiarize yourself with the review process

Suggestions Continued

- **Write the proposal logically and clearly**
- **Work with your mentor**
- **Get others to review your work**
- **Fill out forms completely and correctly**
- **Allow plenty of time to complete the final submission**

What was the Success Rate for various K Awards in 2004 & 2016? K01, K08, K23, K99?

- 10%
- 15%
- 20%
- 25%
- 30%
- 35%
- 40%
- Higher

		2004	2014	2015	2016
Research Career Awards		36%	30%	29%	31%
	K01	32%	34%	34%	32%
	K08	40%	40%	40%	38%
	K23	36%	38%	35%	36%
	K24	42%	49%	48%	57%
	K25	30%	27%	23%	25%
	K99		22%	22%	23%

Fiscal Year	<u>Activity Code</u>	<u>NIH Institute / Center</u>	<u>Number of Applications Reviewed</u>	<u>Number of Applications Awarded</u>	<u>Success Rate</u>	<u>Total Funding</u> ³
2016	K01	NCI	26	5	19.2%	\$780,612
2016	K01	NHLBI	75	36	48.0%	\$5,325,803
2016	K01	NIDDK	90	36	40.0%	\$4,851,470
2016	K01	NINDS	18	3	16.7%	\$674,376
2016	K01	NIAID	26	7	26.9%	\$916,861
2016	K01	NICHD	15	6	40.0%	\$803,987
2016	K01	NIEHS	2	0	0.0%	\$0
2016	K01	NIA	55	23	41.8%	\$2,859,604
2016	K01	NIAMS	46	9	19.6%	\$1,113,152
2016	K01	NIDCD	2	0	0.0%	\$0
2016	K01	NIMH	85	30	35.3%	\$5,038,586
2016	K01	NIDA	53	9	17.0%	\$1,515,833
2016	K01	NIAAA	34	13	38.2%	\$1,938,370
2016	K01	NINR	5	0	0.0%	\$0

Fiscal Year	<u>Activity Code</u>	<u>NIH Institute / Center</u>	Number of Applications Reviewed	Number of Applications Awarded	<u>Success Rate</u>	<u>Total Funding</u>
2016	K08	NCI	64	20	31.3%	\$3,392,677
2016	K08	NHLBI	97	43	44.3%	\$7,043,454
2016	K08	NIDCR	12	7	58.3%	\$956,539
2016	K08	NIDDK	56	25	44.6%	\$3,779,854
2016	K08	NINDS	39	10	25.6%	\$1,795,097
2016	K08	NIAID	55	16	29.1%	\$2,879,089
2016	K08	NIGMS	7	6	85.7%	\$1,122,729
2016	K08	NICHD	22	3	13.6%	\$389,578
2016	K08	NEI	20	10	50.0%	\$1,989,455
2016	K08	NIEHS	1	0	0.0%	\$0
2016	K08	NIA	5	3	60.0%	\$533,082
2016	K08	NIAMS	18	11	61.1%	\$1,824,472
2016	K08	NIDCD	2	0	0.0%	\$0
2016	K08	NIMH	12	5	41.7%	\$962,370

Fiscal Year	<u>Activity Code</u>	<u>NIH Institute / Center</u>	Number of Applications Reviewed	Number of Applications Awarded	<u>Success Rate</u>²	<u>Total Funding</u>³
2016	K23	NCI	31	5	16.1%	\$825,671
2016	K23	NHLBI	101	45	44.6%	\$8,086,510
2016	K23	NIDCR	5	2	40.0%	\$263,164
2016	K23	NIDDK	62	28	45.2%	\$4,964,021
2016	K23	NINDS	41	6	14.6%	\$1,124,099
2016	K23	NIAID	42	17	40.5%	\$2,943,258
2016	K23	NIGMS	6	4	66.7%	\$661,996
2016	K23	NICHD	76	15	19.7%	\$2,022,733
2016	K23	NEI	17	8	47.1%	\$1,717,613
2016	K23	NIEHS	4	3	75.0%	\$457,410
2016	K23	NIA	36	13	36.1%	\$2,042,013
2016	K23	NIAMS	16	7	43.8%	\$1,200,701
2016	K23	NIDCD	11	4	36.4%	\$725,296
2016	K23	NIMH	62	22	35.5%	\$3,844,905



Fiscal Year	<u>Activity Code</u>	<u>NIH Institute / Center</u>	Number of Applications Reviewed	Number of Applications Awarded	<u>Success Rate</u>²	<u>Total Funding</u>³
2016	K99	NCI	159	51	32.1%	\$6,549,907
2016	K99	NHLBI	124	32	25.8%	\$4,066,065
2016	K99	NIDCR	20	5	25.0%	\$579,373
2016	K99	NIDDK	40	9	22.5%	\$815,335
2016	K99	NINDS	76	7	9.2%	\$635,829
2016	K99	NIAID	45	5	11.1%	\$576,151
2016	K99	NIGMS	100	18	18.0%	\$1,580,392
2016	K99	NICHD	72	18	25.0%	\$2,140,274
2016	K99	NEI	22	8	36.4%	\$825,134
2016	K99	NIEHS	46	10	21.7%	\$919,176
2016	K99	NIA	65	18	27.7%	\$2,038,213
2016	K99	NIAMS	28	4	14.3%	\$368,442
2016	K99	NIDCD	9	2	22.2%	\$209,235
2016	K99	NIMH	60	14	23.3%	\$1,511,955

Timeline

- **Building a Timeline for a K award**
 - What is the NIH due date?
 - What is date due to your OSP?
 - What date do you want your first draft finish?
 - Have you considered a schedule for each section?

SF424

- Grants.gov
- Search K01, K08, K23, K99,
- Download Application

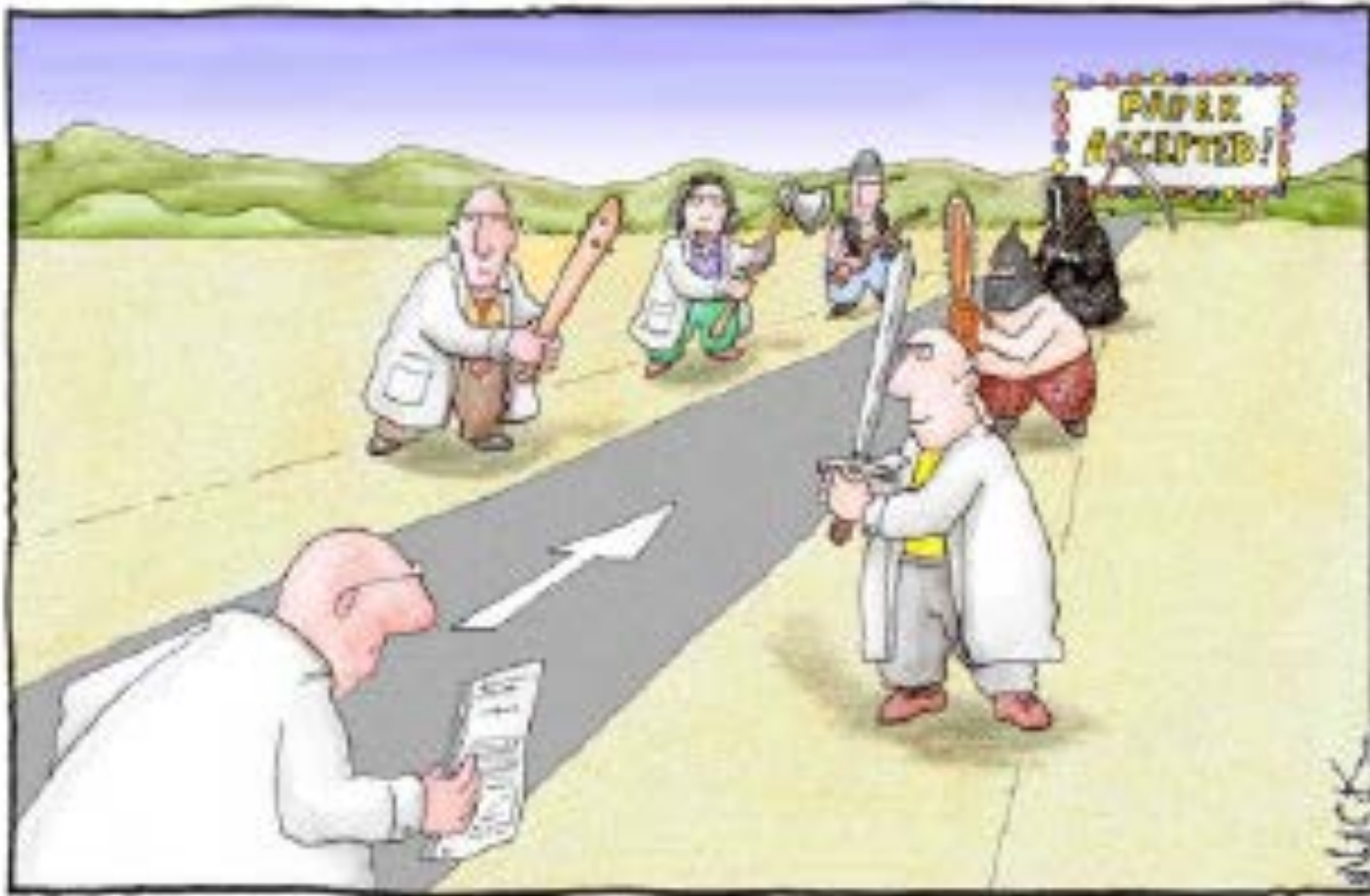
Working on Sections of the K (12 pages)

- Candidate's Background,
- Career Goals & Objectives,
- Candidate's Plan for Career Development/Training
- Research Strategy
 - Significance
 - Preliminary Studies
 - Approach – address each aim, methods, outcomes
 - Conclusion
- Training in Responsible Conduct of Research (1 p.)
- Plans & Statement of Mentors – 6 pages

Working on Sections of K awards

- Institutions commitment to candidates research development (1 page)
- Description of Institutional Environment (1 page)
- Letters of Reference
- Protection of Human Subjects
- Inclusion of – Women, Children
- Vertebrate Animals
- Biohazards

Application Review Process



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

Review Criteria for NIH K Award

- Overall Impact
- Candidate
- Career Development Plan/Career Goals and Objectives
- Research Plan
- Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
- Environment & Institutional Commitment
- Additional Criteria

HELPFUL HINTS

- Seek active input from your mentor and senior investigators
- Contact your Academic Research Office on campus early in the process
- Get to know a Program Officer
- Review the “entire application” with the mentor and others
- Plan ahead (the process can take 4-6 months)

Common Problems

- Lack of well thought out research or training plans
- Weak or absent hypothesis
- Poor presentation (figures too small, writing errors)
- Weak institutional support
- Weak publication history, inexperienced PI

Common Problems

- Mentor: off-site location, unengaged
- Lack of knowledge of published relevant work
- Unrealistically large amount of work
- Uncertainty concerning future career directions

Summary

- Choosing the right mechanism
- How to determine the correct Institute
- Read the PA***
- Application Process
 - Sections and a timeline
- Helpful Hints
- Common Problems