

**Know Your K**

Joan M. Lakoski, PhD • Robert J. Milner, PhD

**NIH Career Development (K) Awards provide support for research careers**

- ~2.4% NIH budget: ~\$705 million (FY10)
- ~4,335 awards (FY10)
- currently 14 different types (K01-K99)
  - for clinicians & basic scientists
  - for junior & senior faculty
- **Mentored K awards** designed for postdocs & junior faculty  
 —> **K01, K08, K23, K99/R00**

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**The Goal of Mentored K Awards**

*To provide support and “protected time” (3-5 years) for an intensive, supervised career development experience in the biomedical, behavioral, or clinical sciences leading to research independence.*

A **dedicated mentor** is essential for

- successful application
- successful outcome

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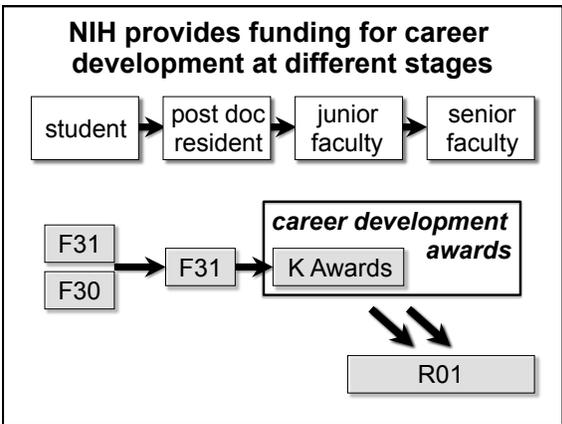
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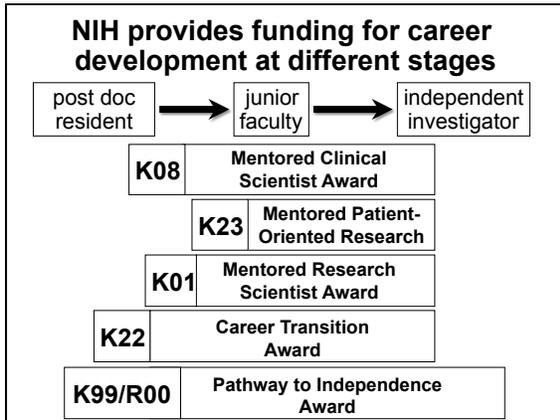
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**K01: Mentored Research Scientist Award**

— *career development in a new area of research*



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- for candidates with potential for productive independent research
- mentor with extensive research experience
- 75% effort over 3-5 years
- differences among Institutes: *NCI no longer participates*

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**K08: Mentored Clinical Scientist Award**

— *to develop clinician research scientists as independent investigators*



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- Requires:
- clinical doctoral degree
  - must have initiated postgraduate training
  - mentor with extensive research experience
  - 75% effort over 3-5 years

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**K23: Mentored Patient-Oriented Research Career Development Award**

— *to develop investigators committed to patient-oriented research*



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Requires:

- clinical or nursing doctoral degree
- completion of all clinical training
- mentor with extensive research experience
- 75% effort over 3-5 years

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**K22: Career Transition Award**

— *support for postdoctoral fellows in transition to faculty positions*



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- for candidates with potential for productive independent research
- differences among Institutes: may involve training in intramural NIH programs

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**K99/R00: Pathway to Independence Award**

— *to facilitate independent funding earlier in an investigator's career*



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- for highly promising postdoctoral scientists
- established in response to increasing age of first independent support
- non-citizens are eligible

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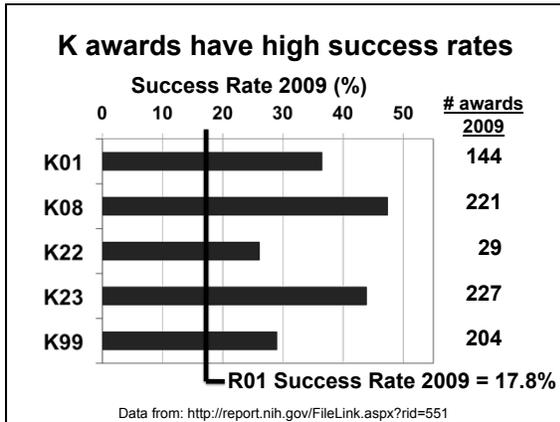
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**Common features of K Awards**

**Eligibility:**

- doctoral degree
- US Citizen, non-citizen national, or permanent resident (*except K99/R00*)
- not eligible if previous PI on R or K grants

**Duration:** 3–5 years

**Effort:** minimum 75%

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**Other individual K Awards**

**K02** Independent Scientist Award

**K05** Senior Scientist Research & Mentorship

**K07** Academic Career Award

**K18** Career Development Award in the Environmental Health Sciences / Career Enhancement Award for Stem Cell Research

**K24** Midcareer Investigator Award in Patient-Oriented Research

**K25** Mentored Quantitative Research Development Award

**K26** Midcareer Investigator Award in Mouse Pathobiology Research

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**For more information on K awards see the NIH website — “K Kiosk”**



<http://grants.nih.gov/training/careerdevelopmentawards.htm>

**Contact the appropriate Program Officer!**

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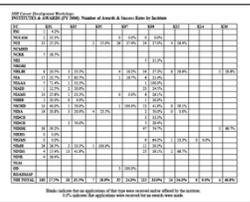
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**Information on K Awards by NIH Institute**



**Spreadsheet: Comparison of K awards across Institutes & Centers**

**Handout: funding of awards by each Institute**

[http://grants.nih.gov/training/K-Awards\\_Across\\_ICs.xls](http://grants.nih.gov/training/K-Awards_Across_ICs.xls)

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**There are three deadlines per year for submission of K Awards**

Receipt	Review	Council	Start
Feb 12	June-July	Sept-Oct	December
June 12	Oct-Nov	Jan-Feb	April
Oct 12	Jan-Feb	May-June	July

- applications must be received electronically on or before the receipt date
- applications are submitted by institutional officials
- your Grants Office may have a much earlier submission deadline

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**K Awards are reviewed by 5 criteria**

-  • Candidate
-  • Career development plan
-  • Research strategy
-  • Mentor
-  • Environment & Institutional commitment

**Remember the criteria as you write your proposal!**

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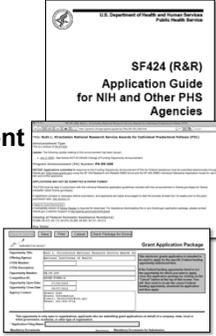
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**Before applying you must obtain & be familiar with 3 sources of information**

- SF424 (R&R) Application Guide
- Program Announcement (PA) for your Award (e.g., F32, K08)
- Application Form for your Award (e.g., F32, K08)




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**Read the Program Announcement (PA) — link to application package**



**PA-10-059 (K08 award)**

**Apply for Grant Electronically**

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**Program Announcements for K awards  
(see K Kiosk \*)**

**K01:** Mentored Research Scientist Development Award  
**PA-10-056**

**K08:** Mentored Clinical Scientist Research Career  
Development Award  
**PA-10-059**

**K22:** see individual institutes on K Kiosk\*

**K23:** Mentored Patient-Oriented Research Career  
Development Award  
**PA-10-060**

\* <http://grants.nih.gov/training/careerdevelopmentawards.htm>

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**Each application package  
is for a specific Award**

• Application package  
is a pdf document

GRANTS.GOV™

Opportunity Title: Mentored Clinical Scientist Research Career Development  
Offering Agency: National Institutes of Health  
CFDA Number: [blank]  
CFDA Description: [blank]  
Opportunity Number: PA-10-059 ← **PA-10-059 (K08 award)**  
Competition ID: ADOBE-FORMS-B  
Opportunity Open Date: 01/12/2010  
Opportunity Close Date: 01/07/2013

**Make sure you have the  
correct application package!**

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**NIH will update forms before  
next submission deadline**

**ADOBE FORMS B1**

GRANTS.GOV™

Opportunity Title: NIH Pathway to Independence Award (Parent K99/R00)  
Offering Agency: National Institutes of Health  
CFDA Number: [blank]  
CFDA Description: [blank]  
Opportunity Number: PA-10-059  
Competition ID: **ADOBE FORMS B1**  
Opportunity Open Date: [blank]  
Opportunity Close Date: 01/07/2013

**Make sure you have the right forms!**

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### Know Your K

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#### Application for a K award should be a collaboration between you & your advisor

You (the "applicant") are **Principal Investigator**

- you are responsible for submitting the application
- you write the research training plan in collaboration with your sponsor

Your advisor/mentor is the **Sponsor**

- she/he must write sections of the application

**You must involve your advisor/mentor early & often in crafting the application!**

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#### There are additional components & instructions for K Awards

##### Career Development Supplemental Form:

**Instructions:**  
Part I, Section 7  
— preparation of a K award proposal

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#### Complete the Cover Component according to standard instructions

- Consult with your grants office for help in completing the forms

**Title:** limited to 81 characters & spaces

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**You sign the application by checking "I agree" (Page 2)**

SF 424 (R&R) APPLICATION FOR FEDERAL ASSISTANCE Page 2

15. ESTIMATED PROJECT FUNDING

16. \*IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

17. By signing this application, I certify (1) to the statements contained on the list of certifications\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\* and agree to comply with any resulting terms of any conditions. (E.O. 12372, Section 1001)

I agree

- remember that in submitting the application, you certify that the contents are **"true, complete, and accurate"**

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**Other Project Information Form**

1. Human Subjects
2. Vertebrate Animals
7. Abstract
  - attach as pdf file
  - no more than 30 lines
  - for K awards, the abstract should include a description of your research project, plus your career goals & training plan

RESEARCH-RELATED Other Project Information

1. Human Subjects

2. Vertebrate Animals

7. Abstract

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**Other Project Information Form**

9. Bibliography
  - for whole proposal
  - attach as pdf file
10. Facilities & Other Resources
11. Equipment
  - detailed description of resources and equipment available to candidate
  - establishes feasibility of proposal

RESEARCH-RELATED Other Project Information

9. Bibliography

10. Facilities & Other Resources

11. Equipment

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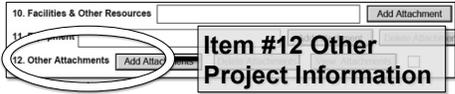
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**List your referees in the  
“Other Attachments” section**



- List of **Referees:**
  - at least 3, not including your sponsor
  - you must include the name of the referee, departmental affiliation, and institution
  - same list must be included in the Cover Letter Component

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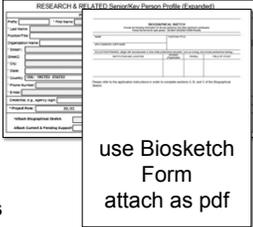
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**Attach your Biosketch:  
the format of the biosketch has changed!**

Five sections:

- education
- A. Personal statement**
  - why are you best suited for this project
- B. Positions & honors**
- C. Selected publications**
  - limit of 15
  - with NIH Manuscript Submission ref #
- D. Research Support**




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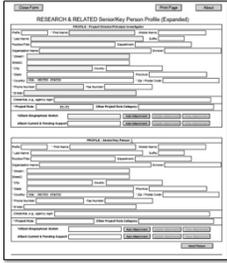
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**Attach Biosketch & Research Support  
for Mentor, Co-Mentor, & Key Persons**

**Research Support**

- list current & pending projects
- include major goals, direct costs
- only required for mentored awards




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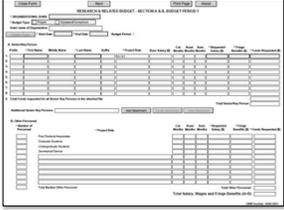
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**Budget: allowable costs may differ by award type & institute**

- consult your grants office &/or Program Officer
- modular budgets not used for K awards
- only a few budget categories used




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**The application also includes “PHS398 Components”**

- **Cover Letter Component**
  - required for mentored K awards
  - must include list of references
- **Cover Page Component**
- **Checklist**
  - follow general instructions
- **Career Development Supplemental Form**

**Watch for changes in forms!**

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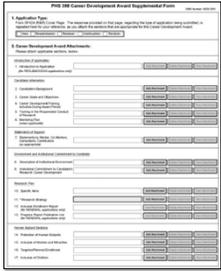
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**The Career Development Supplemental Form contains the proposal itself**

Important sections:

- Introduction (if applicable)
- Candidate Information
- Statements of Support
- Environment and Institutional Commitment
- Research Plan
- Human Subjects, etc

Each component is attached as a separate pdf




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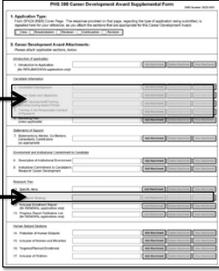
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**Key sections have a page limit:  
this limit has been reduced!**

Candidate Information (items 2-5)  
+  
Research Strategy (item 11)  
= **25 12 pages total**  
+ 1 page for Specific Aims




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**Tip: write the Candidate Information & Research Strategy as a single document**

- better able to assess fit to 12 page limit
- then separate into sections for uploading as pdfs
- NIH will not count white space generated as part of page limits

**Candidate Information & Research Plan (12 pages total)**

- 2. Candidate's Background
- 3. Career Goals
- 4. Career Development
- 5. RCR Training
- 11. Research Strategy

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**The supplemental sections correspond to the review criteria for K Awards**

-  • Candidate
-  • Career development plan
-  • Research strategy
-  • Mentor
-  • Environment & Institutional commitment

**Remember the criteria as you write your proposal!**

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**Candidate's Background (item 2)**

- describe any relevant information about you that is not included in your Biosketch
- e.g., research, clinical training experience
- **be succinct:** this section is included in the 12-page limit!

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**Describe your "Scientific Biography" in Career Goals & Objectives (item 3)**

- justify the proposal by describing how it fits into your career development



- describe previous scientific history
- how the award will enable you to enhance your career objectives
- include reasons for any changes in career direction

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**Mentored K Award applications require letters of reference**

- required for K01, K08, K22, K23 & **K99/R00** applications
- 3–5 letters from individuals other than those involved in the application
  - i.e., not sponsor/mentor or collaborators
- should address candidate's competence & potential as an independent investigator

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**“Applicants must include a cover letter”**

- list **Referees** (including contact information)
- can request assignment to a specific Institute and/or review panel:

**Application Title**  
 Please assign this application to the following:

Institute/Center:  
 National Cancer Institute (NCI)

Scientific Review Group:  
 Cancer Etiology Study Section (CE)

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**Describe what you will learn in the Career Development Plan (item 4)**

- describe new skills & knowledge
  - provide details of courses & workshops
- define distribution of effort for activities (use timeline)
- relate activities to career development & research plans

***Proposing to do what you already know will be viewed as having no training potential!***

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**Items that you must include in a Career Development Plan**

Describe your **goals:**

- what you hope to achieve . . .
- describe specific activities designed to achieve each goal
- include a specific aspect of advanced research training and professional skills (e.g. training in grant writing)
- describe how your institutional environment will enhance your success in achieving your goals

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#### Your mentor(s) must describe detailed plans for mentoring

- the specific expertise of your mentors and how their guidance will help you to achieve your goals
- the specifics of mentoring, including frequency of meetings (e.g., weekly)
- consider adding an Advisory Committee to monitor your progress every 6 months

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#### Include a Timeline for your Career Goals & Objectives

List:

- your distribution of effort
- specific objectives for each year
- plans for subsequent grant support

NIH Career Development Award Workshop  
Example of a Table for a Career Development Plan:

Year	Area	Focus	Activities
1	Education	100%	Enroll in course, Career ABC
	Research	0%	Begin Aim 1
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Conference
2	Education	0%	Complete course, Career ABC
	Research	100%	Begin Aim 1, visit FANCO's LAB in Iowa ABC
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Meeting (career presentation)
3	Education	0%	Complete Aim 1, Begin Aim 2
	Research	100%	Complete Aim 1, Begin Aim 2
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Meeting (career presentation)
4	Education	0%	Complete Aim 2
	Research	100%	Complete Aim 2, submit R01 application
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Conference
5	Education	0%	Complete Aim 2, Get metrics
	Research	100%	Complete Aim 2, Get metrics
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Meeting (career presentation)
6	Education	0%	Complete Aim 2, Get metrics
	Research	100%	Complete Aim 2, Get metrics
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Meeting (career presentation)
7	Education	0%	Complete Aim 2, Get metrics
	Research	100%	Complete Aim 2, Get metrics
	Chaperoning	0%	Attend Mentor's Conference
	Meetings	0%	Meetings
	Career Service	0%	Attend Research Meeting (career presentation)

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#### Research Plan should “develop skills needed by a researcher”

- should be hypothesis-driven
- not overly ambitious or routine

**The format of the Research Plan has changed:**

- Specific Aims (1 page)
- **Research Strategy:**

- Significance
- Innovation
- Approach

*Experimental details should be cited using references & not described in detail!*

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**The *Mentor* must have a strong record of research and mentoring**

- Your mentor should meet these qualifications (& document them adequately!)
- If not, provide a plan to correct any deficiencies:
  - co-mentor(s)
  - mentoring advisory team

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**Statements by Mentor must also explain how award will develop candidate's career**

**Should include:**

- plans for candidate's career development
- source(s) of support for research project
- supervision & mentoring of candidate
- candidate's teaching load (if any)
- plan for transition of candidate to an independent investigator

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**A strong statement of Institutional Commitment is essential (item 9)**

- on institutional letterhead
- commitment to candidate independent of award
- agreement to provide protected time for candidate's research & career development
- equipment, lab space, office, facilities, resources




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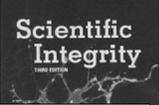
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**You must include plans for instruction in Responsible Conduct in Research**

- describe in Item 5
- follow new NIH guidelines for RCR instruction



**Update on the Requirement for Instruction in the Responsible Conduct of Research**

Notice Number: **NOT-OD-10-019**

Key Dates  
Release Date: November 24, 2009

Issued by  
National Institutes of Health (NIH), (<http://www.nih.gov>)  
<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

**NOT-OD-10-019**

*"Applications lacking a plan for instruction in responsible conduct of research will be considered incomplete and may be delayed in the review process or not reviewed."*

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**Write to the review criteria**

-  • Candidate
-  • Career development plan
-  • Research plan
-  • Mentor
-  • Environment & Institutional Commitment
-  • RCR Instruction

**A strong response for each criterion!**

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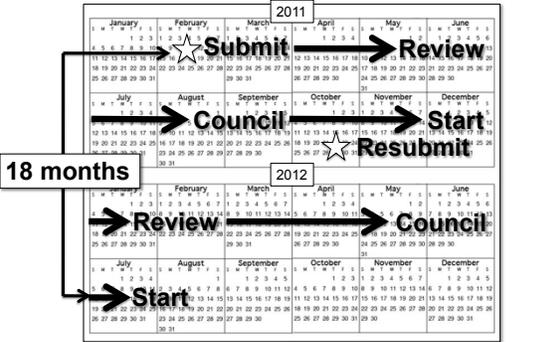
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**Plan ahead for resubmission!**




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