

# Putting Pen to Paper:

## A framework for writing your Career Development Award (K) application

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October 10, 2016

Presented by Janet Gross, PhD



# Announcements

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## 1. **K Tutorial** (NIH K and other CDAs)

- open to anyone preparing any career development award
- in class, 6-hour, step-by-step instruction based on the K award

[Mondays November 21 \(9am-12 noon\) & November 28 \(9:30 am – 12 noon\)](#)

## 2. **ACTSI KL2 / BIRCWH K12**

- stay tuned for more information on these Emory-funded 2 year CDA
- ACTSI KL2: Mentored Clinical and Translational Research Scholars award
- BIRCWH K12: Building Interdisciplinary Research Careers in Women's Health

[dates in December TBD – 2, 2-hour, classroom-based tutorials](#)

More information: OPE Newsletter, Pediatrics BIRD, and ACTSI eRoundup

To sign up: email the grant title, RFA, and biosketch info to [jsgros2@emory.edu](mailto:jsgros2@emory.edu)

# Survey Drawing

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# Today's Topics: Format and Write

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- Write Your Application → tailored to the K
  - Focus on **Institutional Support**
- Develop the Budget - \$\$\$
- Biosketch and other documents that support the review criterion: **Candidate**
- Other important documents

# How to Apply - Application Guide

Use the application forms and guidance found with the funding opportunity announcement together with the instructions for the SF424 (R&R) and Public Health Service (PHS) forms below to submit grant applications to NIH and other PHS agencies, such as the Centers for Disease Control and Prevention, the Food and Drug Administration, and the Agency for Healthcare Research and Quality.

[Feedback on the application guide?](#)

 [Using Our New Application Guide](#)

## Prepare to Apply and Register

- Understand Key Systems and Roles
- Get Registered!
- Find and Understand Funding Opportunities
- Identify the Type of Application Submission
- Choose a Submission Option
- Obtain Software

## Format and Write

- Write Your Application
- Develop Your Budget
- Format Attachments
- Refer to Table of Page Limits
- Utilize Biosketch, Data Tables and Other Format Pages

## Submission Process

- Submit, Track and View Your Application
- Learn How We Check Your Application for Completeness
- Submit a Changed/Corrected Application
- Submit a Reference Letter

## Due Dates and Submission Policies

- Due Dates
- Submission Policies
- Guidelines for Applicants Experiencing System Issues

## Form Instructions (forms are posted with the funding opportunity announcement)

[Need help selecting the right application instructions?](#)

## After Submission

- Receipt and Referral
- Peer Review

The screenshot shows the NIH Grants & Funding website. At the top, there are navigation links for 'U.S. Department of Health & Human Services' and 'National Institutes of Health'. The main header includes the NIH logo, 'National Institutes of Health Office of Extramural Research', and 'Grants & Funding NIH's Central Resource for Grants and Funding Information'. A search bar is present with a dropdown menu set to 'Entire Site'. Below the header is a blue navigation bar with links for 'HOME', 'ABOUT GRANTS', 'FUNDING', 'POLICY & COMPLIANCE', 'NEWS & EVENTS', and 'ABOUT OER'. The breadcrumb trail reads: 'Home » About Grants » How to Apply - Application Guide » Format and Write » Write Your Application'. The main content area features a large heading 'Write Your Application' with a plus sign to its left. To the left of the heading are links for 'Grants Basics' and 'Grants Process Overview'. To the right is a red warning box that says 'Avoid Grant Scams'. The URL in the browser's address bar is visible at the top of the page.

- Each K has its own Institute-specific information, particularly with regard to salary support and research support
  - generic K, aka Parent K
- Some K Program Announcements are ‘special’, i.e., special topics, limited offer
  - [HIV/AIDS Vaccine Scholars Program \(K01\) PAR-16-347](#)
  - [BD2K Mentored Career Development Award in Biomedical Big Data Science for Clinicians and Doctorally Prepared Scientists \(K01\) RFA-ES-16-002](#)
  - [NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity \(K08\) PAR-16-400](#)

# 1. Find the instructions to write the application

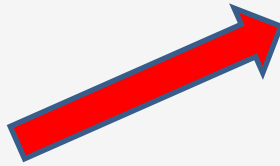
- Combination of Funding Opportunity Announcement (PA xx-xxx) + Application Guide

▶ Forms Version D		
Application Instructions	Description	View/Download
General (G) Instructions	Comprehensive guidance for research, training, fellowship, career development, multi-project, and small business applications	<a href="#">HTML</a> <a href="#">PDF</a>
<b>Filtered views for your convenience:</b>		
Research (R) Instructions	Guidance for research only	<a href="#">PDF</a>
Career Development (K) Instructions	Guidance for career development only	<a href="#">PDF</a>
Training (T) Instructions	Guidance for training only	<a href="#">PDF</a>
Fellowship (F) Instructions	Guidance for fellowship only	<a href="#">PDF</a>
Multi-Project (M) Instructions	Guidance for multi-project only	<a href="#">PDF</a>
SBIR/STTR (B) Instructions	Guidance for small business only	<a href="#">PDF</a>

**FORMS VERSION D SERIES**

Released: March 25, 2016

Revised: June 10, 2016



**CAREER DEVELOPMENT  
INSTRUCTIONS FOR NIH AND OTHER  
PHS AGENCIES**

SF424 (R&R) APPLICATION PACKAGES

Guidance developed and maintained by NIH for preparing and submitting applications via Grants.gov to NIH and other PHS agencies using the SF424 (R&R)

This gets updated not infrequently.  
Always pull the guidelines from the  
NIH website

<https://grants.nih.gov/grants/how-to-apply-application-guide.htm#inst>



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'live' guide to all sections and form pages

# Form Screenshots

## Quick Links

- [SF 424 \(R&R\) Form](#)
- [PHS 398 Cover Page Supplement](#)
- [R&R Other Project Information Form](#)
- [Project/Performance Site Location\(s\) Form](#)
- [R&R Senior/Key Persons Profile \(Expanded\)](#)
- [R&R Budget Form](#)
- [R&R Subaward Budget Attachment\(s\) Form](#)
- [PHS 398 Career Development Award Supplemental Form](#)
- [PHS Inclusion Enrollment Report](#)
- [PHS Assignment Request Form](#)

Find this at the end of the TOC – print out all the form pages

- Use this to make your own 'to do' list

## 2. What are peer reviewers looking for?

<b>NIH Review Criteria</b>		
<b><u>F- Fellowship Grants</u></b>	<b><u>K - Career Development</u></b>	<b><u>Standard Grants</u></b>
Fellowship Applicant	Candidate	Significance
Sponsors, Collaborators and Consultants	Career Development Plan / Career Goals	Investigator
Research Training Plan	Research Plan	Innovation
Training Potential	Mentors, Co-mentors, etc.	Approach
Institutional Environment and Commitment to Training	Environment / Institutional Commitment to Candidate	Environment

Lots of good guidance at NIH site on peer review

# Additional Review Criteria (not scored)

(these are all sections of a typical NIH proposal)

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- Protections for Human Subjects
- Inclusion of Women, Minorities, and Children
- Vertebrate Animals
- Biohazards
- Select Agent
- Resource Sharing Plans
- Authentication of Key Biological and/or Chemical Resources
- Budget and Period Support
  
- Resubmission

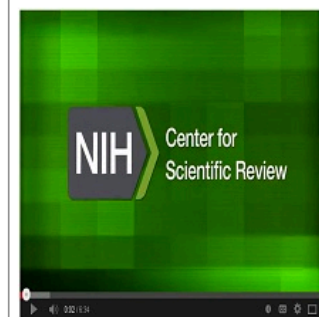
# Peer Review Process

- [https://grants.nih.gov/grants/peer\\_review\\_process.htm](https://grants.nih.gov/grants/peer_review_process.htm)
- NIH on YouTube  
<http://public.csr.nih.gov/aboutcsr/contactcsr/pages/contactorvisitscrpages/nih-grant-review-process-youtube-videos.aspx>
- Some K FOAs are directed to institute-specific study sections (review groups), some go to general study sections
- You can see the study section members and review group committees at  
<http://public.csr.nih.gov/StudySections/Pages/default.aspx>

NIH Peer Review Revealed provides a front-row seat to a review peer review meeting.



Jumpstart Your Research Career with CSR's Early Career Reviewer Program tells how it works.



What Happens to Your NIH Grant Application shows our popular outreach talk.



NIH Tips for Applicants gives applicants practical advice and insights.



# How to research what was previously funded for this FOA?

- NIH RePORTER publishes abstracts of previously funded grants
- The Funding Opportunity Announcement = PA = RFA (search using the current and most recent FOAs)
- Activity Code = R01; K23; F32

**PROJECT DETAILS**

Project Number/ Application ID:   
Format: 5R01CA012345-04/8515397  
Use '%' for wildcard in project number, e.g. %R21%  
[Enter multiple project numbers/application IDs](#)

OR

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	R01	CA	811099	01	A1S1

Program Officer (PO):  ,   
(Last Name, First Name)  
Use '%' for wildcard

Project Start Date: >=   
Format: mm/dd/yyyy

Project End Date: <=   
Format: mm/dd/yyyy

Award Notice Date:    
Format: mm/dd/yyyy

Agency/Institute/Center:    
 Admin  Funding

NIH Spending Category:

Funding Mechanism:

Award Type:

Activity Code:

Study Section:

or

FOA:   
Format: RFA-IC-09-003 or PA-09-003  
20 entry maximum; Use % for wildcard  
[Funding Opportunities and Notices](#)

*Note: A red arrow points from the text 'K23' to the 'Activity Code' field. A red circle highlights the 'FOA' field and its associated text.*

# 3. Resources, Independence and Institutional Support

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- K grants require excellent institutional support
- This is an important **competitive** review criterion that establishes the likelihood that any research can get done and that you are likely to advance in your chosen career

<b>K - Career Development</b>
Candidate
Career Development Plan / Career Goals
Research Plan
Mentors, Co-mentors, etc.
Environment / Institutional Commitment to Candidate

# Locations in the K grant where you document the types of Institutional Support

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## **PHS398 Career Development Award Supplemental Form**

### Mentor, Co-Mentor, Consultant and Collaborators Section

8. Plans and Statements of Mentor and Co-Mentor(s)
9. Letters of Support from Collaborators, Contributors, and Consultants  
Letters of Reference (confidential 3-5 letters from referees)

### Environment and Institutional Commitment to Candidate Section

10. Description of Institutional Environment (1 page)
11. Institutional Commitment to Candidate (1 page; Chair or Division Director's letter)

## **R&R Other Project Information Form**

10. Facilities and Other Resources (no page limit)
11. Equipment (no page limit)



# 1 1. Institutional Commitment to Candidate

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- Chair's letter must state that you will devote at least 75% time to research and training and the Chair will protect this special time (not uncommon for PhD candidates to show 100%)
- The chair's endorsement of you and your position in the department **cannot be contingent** upon this K, i.e., you already have your Instructor, Asst Prof or Postdoc position in place (or firm offer regardless of the outcome of the K)
- The chair must describe how the department will not suffer the loss of your clinical effort **(this is new)**
- Your mentors are encouraged to mentor you for this K

# What about institutional support do reviewers care about?

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- All support is good support and evidence of institutional support
  - Travel funds, research assistant, Core support (GEMS, Integrated Genomics, etc.)
- If you are a **postdoc (or equivalent)**:
  - Name all resources your mentoring team will share with you
  - Typically the K does not provide sufficient funds to carry out research without institutional help
  - You need a financially secure mentored environment
- If you are **faculty**:
  - Start-up funds are a **KEY COMPETITIVE ADVANTAGE**
  - support for a technician, travel, coursework, etc.
  - *This is a positive indicator of institutional commitment to the peer reviewers*

# Mentors and Co-Mentors

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- 6 pages for all mentors' statements
- The more detail about what constitutes 'mentoring' the better
  - "Geographic proximity" mentoring is suspect
  - So is a very famous mentor who has very little time for you
  - So is a main mentor who is not local
- Main mentor should be at least Assoc Prof
- Mentoring team or advisory team can fill in the gaps if the main mentor doesn't meet all the criteria for a competitive mentor
- Mentor needs to demonstrate a 'stable financial environment'
  - Its tough to sell a main mentor whose key source of research funds are about to expire
- Mentor needs to convene the Advisory Team, i.e., help be in charge of getting the promised support from all other 'helpers'

# Collaborators and Consultants

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- Can offset deficiencies in expertise at your home institution
- Can give you the opportunity to have valuable, rare resources
- Can offer the opportunity to network beyond your home institution
- If you are not yet faculty, off campus consultants, collaborators, and even co-mentors can offer a greater horizon for the job search
- Shows evidence for team science / collaboration
- Be the bridge from your lab to a collaborator's lab

# Planning the Budget



# Can you afford to do the work you are proposing?

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- K budgets are limited in scope
- Each institute and K has its own idiosyncratic budget

## For K23

### **NIBIB Specific Information:**

NIBIB will fund K23 awards for 3 or 4 years.

**Salary Support:** Up to \$105,000 plus fringe benefits per year.

**Research Support:** Up to \$40,000 per year.

### **NICHD Specific Information:**

NICHD has a 6 year limit of cumulative support on institutional K awards (e.g., K12, KL2) and individual mentored K awards.

**Salary Support:** Up to \$100,000 plus fringe benefits per year.

**Research Support:** Up to \$25,000 per year.

# K Budget preparation requires only these 2 fixed 'line items'

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- Salary
- Research Support
- In the **Budget Justification** narrative, you just need to show enough information to substantiate the use of funds for Year 1 and any deviation (increase or decrease or big changes) for subsequent years

# Special Instructions for K Budget

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## **Additional Instructions for Career Development:**

K award mechanisms are not modular; therefore, only the R&R budget form is applicable and only a few budget categories are actually used. Information regarding allowable costs for the candidate and any allowable research development or other costs is included in each K program FOA. Candidates are advised to contact the targeted awarding component if uncertain about allowable amounts for the applicable K award mechanism, keeping in mind that amounts vary with awarding components. The application forms package associated with CDA funding opportunities includes the R&R Budget Form.

Note: NIH intramural candidates applying for transitional career award support (e.g., K22, K99/R00) should follow instructions in the applicable FOA. For the mentored phase of these awards, budgets are negotiated with the sponsoring intramural



# Budget and Budget Justification

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## A. Senior / Key Person

- This is you the PI, and that's it; 75% effort or 9 person months (minimum) based on the offered amount (fringe is on top)
- PhD typically show 100% effort or close to this
- Can you give yourself a raise???

## B. – E. Leave blank

## F. Other Direct Costs

- Enter the total amount offered (e.g., \$50,000)
- Describe how you reached this amount (reasonable detail to include travel, subject/patient expenses, research assistant (includes fringe), licensing and rental fees, consulting fees, etc.)

## H. Indirect Costs

- 8% (fixed)

# Who can receive salary support on a K?

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- You, the PI are the only person in the Key Personnel line
- If you include any other personnel, fringe is **included**, unlike all other NIH grants and this goes in **F. Other Direct Costs**
  - Biostatistical or other consultant (% effort and/or fee for service)
  - Research assistant
  - Clinical coordinator
- No mentors or collaborators can be paid
- Consultants can receive payment



<b>My Emory salary today</b>	<b>K will give me \$75,000</b>	<b>Department commits to contribute</b>
\$ 52,000 ~ NIH 5 <sup>th</sup> yr postdoc	- Ask for a raise (before you submit) to \$75,000, request 100% effort on K	0
\$ 75,000	- Request 100% effort	0
\$100,000	\$75,000 @ 75% effort	\$25,000 for 25% effort
\$125,000	\$75,000 @ 75% effort	\$50,000 for 25% effort

# Show all In Kind or Institutional Support in Budget Justification (Show \$\$)

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- This is a type of institutional support and is highly valuable
- This gives reviewers confidence that the environment will help you achieve your research goals

## F. RESEARCH COSTS (total = \$50,000/yr)

### Supplies

**Microdialysis ( $\mu$ D):** A total of \$10,190 is requested for  $\mu$ D supplies including the following: \$2,895 for a CMA 107  $\mu$ D pump. \$6,475 for 28 CMA 60  $\mu$ D probes (\$231.25 per probe), \$430 for 40 CMA syringe pumps, \$285 for 250  $\mu$ D microvials, and \$105 for 5 CMA pump batteries.

**AFB Culture and Drug Susceptibility Testing:** A total of \$2,100 is requested for supplies including the following: \$800 for 100 MGIT tubes, \$1,000 for DST reagents, and \$300 for 100 tissue grinders.

**Genome Sequencing:** A total of \$1,263 is requested for genetic sequencing supplies including the following: \$633 for 250 DNA Qiagen Mini-Kits, and \$630 for reagents necessary for freezing MTB isolates and DNA.

**Lab supplies:** A total of \$319 is included for miscellaneous lab supplies including gloves and N95 respiratory masks.

**Total = \$13,872**

**Patient enrollment costs:** A total of \$2,000 is requested to pay study staff in the Republic of Georgia to perform all the tasks required for patient enrollment including collecting informed consent, data collection, blood draw, DNA extraction, freezing MTB isolates, microdialysis, and shipping samples. (4 patients \* \$500 per patient).

**Total = \$10,128**

### In-Kind

**Travel:** All travel during year 1 will be supported by an ongoing NIH Fogarty TB research-training grant (D43TW007124; PI: Blumberg).

**Coursework:** Emory courtesy scholarship for faculty ( 5 credits/semester) will cover coursework in Year 1.

## Institutional cost sharing (funds to conduct research outside the K23 budget):

Because we are leveraging institutional resources (see Emory CFAR and ACTSI letters), CDC (see Dr. H's Mentor's Statement of Support), and existing grant support from Dr. O (see Dr. O's Mentor's Statement of Support) to support this application there are considerable economies of scale.

Lab Collection and processing supplies: Funds for specimen collection supplies and specimen storage kits will be provided through existing grants to the mentors and through the CFAR and ACTSI.

Patient Costs: Subjects will receive contraceptives (DMPA, Eng-Implant and Lng-IUD) as part of standard care via their payor sources, Title X funding or through support of a foundation contraceptive grant at Emory

Lab costs: Study laboratory assays will be performed at the Division of HIV/ AIDS Prevention Laboratory Branch at the CDC (see Dr. H's support letter).

Tuition fees: Emory courtesy scholarship for faculty will be utilized to all tuition for coursework at Emory.

Travel, Society Membership and Board Certification: \$3,000 of professional development funds are available annually through the Department of Gynecology at Obstetrics (see Chair's letter) to cover fees for society memberships and annual certification through the American Board of Obstetricians and Gynecologists. Remaining funds may be used to cover the costs of attendance at an additional conference each year.

# Other Important Documents

## (use Format Pages)

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<https://grants.nih.gov/grants/forms/format-pages.htm>

- Your Biosketch
  - See RSPH Grand Rounds and various online documents
- Letters of recommendation (request 3-5)
  - <http://grants.nih.gov/grants/how-to-apply-application-guide/submission-process/reference-letter.htm>

# Your Research Plan

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- This is a topic for another talk



# Important Writing Tips

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<http://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/write-your-application.htm>

1. Make your project's goals realistic
2. Be organized and logical
3. Write in clear concise language
4. Sell your ideas on paper
5. Edit yourself but also enlist help
6. Share for comments

# Thank you!



 **YOU**