'Getting Your Foot in the Door - Tips to Get an Early Investigator Award

Ruanne V Barnabas, MD, Dphil
Department of Global Health
Outline

• Background
• Your idea
• Which mechanism
• Writing the application
• Responding to reviewer’s comments
Types of Awards

• NIH – K-Awards or early independence awards
• Institutional Awards
• Private/Philantropic Foundations
Your idea

1. Write down your idea
2. Frame in the context of your background and skills
3. Identify a new learning opportunity
4. Identify the context in which to do your work
   • Do the three pieces fit together?
Deciding on which funding mechanism/s

• Resources:
  – K Kiosk
    (http://grants.nih.gov/training/careerdevelopmentawards.htm)
  – Career award wizard
    (http://grants1.nih.gov/training/kwizard/index.htm)
  – Your mentors
  – Grant writing workshops (Are you on the post-doc email list)
  – List serve for grant announcements

• Your program officer is your friend
K-Awards

K-Awards provide “protected time” to engage in research and enhance research capabilities.

Early, mid, & senior level awards.

Majority require 75% of full time research effort.

Applicants must hold a research or health professional doctoral degree.

U.S. citizenship or permanent residency required.

2 types of awards:

- **Individual**, e.g. K01, K02, K08, K18, K22, K23, K24, K25, K99/R00
- **Institutional**, e.g. K12, CTSA (KL2)
Career Development Awards

Individual Mentored:

- K01: Mentored Research Scientist Development Award
- K08: Mentored Clinical Scientist Development Award
- K23: Mentored Patient-Oriented Research Development Award
- K25: Mentored Quantitative Research Development Award
- K99/R00: NIH Pathway to Independence (PI) Award

Institutional Mentored:

- K12: Institutional Mentored Research Scientist Development Program

Individual Non-Mentored (Independent):

- K02: Independent Scientist Research Development Award
- K24: Mid-Career Patient-Oriented Research Development Award
Mentored Research Scientist

- Provides an intensive, mentored research experience for a period of up to 5 years.

- Minimum of 75% full-time professional effort is required (based on 12 person months appointment).

- Candidates must have a research doctorate and postdoctoral experience.

- Caution: Not an extension of postdoctoral training!

- Varied and limited NIH Institute and Center participation:
  - Some ICs use for re-entry
  - Some ICs use to pursue new research area

- Requires plan for independence.
K-Awards

- U.S. Citizens, Non-Citizen Nationals, Permanent Residents (except K99/R00).
- Research doctoral degree (K01, K02), but some require clinical doctoral degree (K08, K23, K24).
- Must devote a minimum of 75% effort to research and career development activities. There are exceptions.
- Previous NIH Principal Investigators may be Ineligible.
- Principal Investigators on R03 or R21 are eligible to apply (except K99/R00).
- Principal Investigators on R01 or subproject Principal Investigators on a P01 are not eligible to apply.
Types of K-Awards

K01 Mentored Research Scientist Development Award
- Career development in a new area of research
- Candidate must have research or health-professional doctorate
- Either Clinical or Basic Science emphasis
- 3-5 yrs / at least 75% effort
- Mentorship required

K02 Independent Scientist Award
- Develop the career of the funded scientist
- Candidate must have a doctoral degree and independent, peer-reviewed research support at the time of award
- Either Clinical or Basic Science emphasis
- Up to 5 yrs / at least 75% effort
- No mentorship required

(K05 Senior Scientist Award)
Types of K-Awards

K07 Academic Career Award
- Developmental/Leadership in academic instruction, research, administration
- Candidates must have a clinical or research doctoral degree
- Either Clinical or Basic Science emphasis
- Development: Up to 5 yrs / at least 75% effort, Leadership: 2-5 yrs / 25-50% effort
- No mentorship required

K08 Mentored Clinical Scientist Development Award
- Development of the independent clinical research scientist
- Candidate must have a clinical doctoral degree
- Clinical emphasis
- 3-5 yrs / at least 75% effort
- Mentorship required

K22 Mentored-Patient Oriented Research Career Development Award
- Support to an individual postdoctoral fellow in transition to a faculty position
- Candidate must have a clinical doctoral degree
- Clinical emphasis
- Varies according to institute
- Mentorship required
Types of K-Awards

K25 Mentored Quantitative Research Career Development Award
- To foster interdisciplinary collaboration in biomedical research by supporting career development experiences for scientists with quantitative and engineering backgrounds
- Candidates must have an advanced degree in a quantitative area of science or engineering
- Basic Science emphasis
- 3-5 yrs / at least 75% effort
- Mentorship required

K30 Clinical Research Curriculum Development
- Institutional award for development of a clinical research curriculum
- Clinical emphasis
- Up to 5 yrs / % effort not specified
- No mentorship required
Types of K-Awards

K99/R00 - NIH Pathway to Independence Award
• Timely transition from a mentored postdoctoral research position to a stable independent research position
• With independent NIH or other independent research support at an earlier stage than is currently the norm
• Contact NIH staff for details

Institutional K-Awards: KL2 (ITHS) and K12
• 3-5 yrs / at least 75% effort
• Mentorship required

Other mid-career K-Awards
<table>
<thead>
<tr>
<th>Amount of Funding per year</th>
<th>K01</th>
<th>K08</th>
<th>K23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Support</td>
<td>$50K - $150K</td>
<td>$75K - $105K</td>
<td>$75K - $180K</td>
</tr>
<tr>
<td></td>
<td>($75K)</td>
<td>($75K)</td>
<td>($75K)</td>
</tr>
<tr>
<td>Research/Training</td>
<td>$20K - $50K</td>
<td>$20K - $90K</td>
<td>$25K - $50K</td>
</tr>
<tr>
<td></td>
<td>($25K)</td>
<td>($25K)</td>
<td>($25K)</td>
</tr>
</tbody>
</table>
The Application

• Print and read the entire application guide at least three months before the due date
• Read an example of a successful K-Award
• Discuss strategy and time-lines with mentors early
• Draft specific aims page asap
• Provide final drafts with two weeks for your mentors to review the application and two weeks for you to make changes
Writing the Application

- Budget
- Budget Justification
- Project Summary
- Research Plan
- Resources
- Bio-sketches
- Human Subjects
- Letters of Support (including from Mentors)
- Bibliography
- Cover letter
# Restructured Research Plan

<table>
<thead>
<tr>
<th>Current Application</th>
<th>New Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background and Significance</td>
<td><strong>Research Strategy</strong></td>
</tr>
<tr>
<td>Research Design and Methods</td>
<td>a. <strong>Significance</strong></td>
</tr>
<tr>
<td>Preliminary Studies/Progress Report</td>
<td>b. <strong>Innovation</strong></td>
</tr>
<tr>
<td></td>
<td>c. <strong>Approach:</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Preliminary Studies for New Applications</td>
</tr>
<tr>
<td></td>
<td>▪ Progress Report for Renewal/Revision</td>
</tr>
</tbody>
</table>
Career Award Review Criteria

Candidate:
- Quality of research, academic and/or clinical record.
- Potential to develop as an independent and productive researcher.
- Qualifications and statement by Sponsor/Mentor and collaborators/Consultants.
- Quality of the letters of reference.

Career Development Plan:
- Likelihood that plan will contribute substantially to the scientific development of candidate.
- Content, scope, phasing, and duration of the plan in the context of prior experience and stated career objectives.
Career Award Review Criteria

Research Plan:

- Scientific and technical merit of the research question, design and methodology.
- Relevance of the proposed research to the candidate's career objectives.
- Appropriateness of the research plan to the stage of research development and as a vehicle for developing the research skills described in the career development plan.
Career Award Review Criteria

Environment and Institutional Commitment to the Candidate:

- Commitment of institution to ensure that the candidate's effort will be devoted to research.

- Adequacy of research facilities and training opportunities, including capable faculty.

- For “K” awards, assurance that institution intends for the candidate to be an integral part of its research program.

Training in the Responsible Conduct of Research:

- Quality and appropriateness of the proposed training in the responsible conduct of research.
Success Rates of K01 Awards

The graph shows the success rates of K01 Awards from 2000 to 2009. The x-axis represents the fiscal year, while the y-axis shows the number of applications and awards. The success rate is represented by a line graph. The data indicates a fluctuation in success rates over the years.
Success Rates of K08 Awards

[Bar chart showing the number of reviewed, awarded, and success rate applications for fiscal years 2000 to 2009. The bars are colored blue for reviewed and green for awarded, with a line graph showing the success rate. The success rate generally decreases from 2000 to 2005, then increases slightly thereafter.]
Success Rates of K23 Awards
Success Rates of K99 Awards

The chart shows the success rates of K99 Awards over four fiscal years: 2006, 2007, 2008, and 2009. The x-axis represents the fiscal years, and the y-axis represents the number of applications and awards. The chart includes three categories: reviewed, awarded, and success rate.

- **Reviewed**: The number of applications reviewed each year.
- **Awarded**: The number of awards given each year.
- **Success Rate**: The percentage of applications that are awarded.

From the chart, it can be observed that:
- In 2006, there were fewer applications reviewed compared to other years.
- The number of applications reviewed and awarded increased significantly in 2007.
- The success rate and the number of awarded grants decreased after 2007.

The chart highlights the trends and success rates over these fiscal years, providing insights into the K99 Award process.
# New Scoring System

<table>
<thead>
<tr>
<th>Overall Impact</th>
<th>Score</th>
<th>Descriptor</th>
<th>Guidance on strengths &amp; weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Impact</td>
<td>1</td>
<td>Exceptional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Outstanding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Excellent</td>
<td>Strengths</td>
</tr>
<tr>
<td>Moderate Impact</td>
<td>4</td>
<td>Very Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Satisfactory</td>
<td>Weaknesses</td>
</tr>
<tr>
<td>Low Impact</td>
<td>7</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Marginal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Poor</td>
<td></td>
</tr>
</tbody>
</table>
Due Dates – include resubmission

- Use SF 424 – Part I, Section 7: Supplemental Instructions for Preparing an Individual Research Career Development Award (CDA) Application.

- Submission dates for new applications: **February 12, June 12, October 12.**

- For resubmissions: **March 12, July 12, November 12.**

- Institutes and Centers use of career awards is highly variable. Read announcement and instructions carefully and call the NIH staff!

- In K announcements, see contact Webtable for participating Institutes and Centers.
Thank you

Mentors
ICRC
  Connie Celum
  Jared Baeten
PATH
  Carol Levin
DGH
  Judy Wasserheit
  Dean Jamison
  King Holmes

Funding
  NIH NCRR Grant 5 KL2 RR025015
  Qatar National Research Fund NPRP 08–068–3–024
  NIH CFAR Grant P30 AI027757
  NIH 5 R01 AI083034 & 3 R0 AI 083034-02S2
  NIH Directors Award RC4 AI092552