Helping Your Mentees Develop a Competitive K Award Application
(K01, K07, K08, K23, K25, K99)

Thomas Mitchell, MPH

Department of Epidemiology & Biostatistics

University of California San Francisco

May 2010

Key Features of Mentored K Awards

- 3 – 5 years in length
- Provide substantial salary support ($50K - $180K per year) but limited research funding ($20K-$90K per year).
- Contain both a training plan *and* a research plan.
- Includes a team of mentors, co-mentors, advisors, etc.
- Goal: transition to research "independence".

NIH Criteria for Evaluating Candidates

- Potential for conducting research.

- Evidence of originality.

- Adequacy of scientific background.

- Quality of research endeavors or publications to date.

- Need for further research experience and training.

NIH Criteria for Evaluating the Primary Mentor

- Appropriateness of mentor's research qualifications in the area of the application.
- Quality and extent of mentor's role in providing guidance and advice to candidate.
- Previous experience in fostering the development of more junior researchers.
- History of productivity and support.
- Adequacy of support for the research project.

Main Components of a Mentored K Award Application

- Career Development Training Plan
- Mentoring Plan
- Institutional Commitment
- Research Plan

Developing a Career Development Training Plan

- Understand the *intent* of the mentored K award – which is to help new investigators achieve independence (i.e., to compete successfully for R01-level funding).

   Therefore, preparing for the R01 grant application that the candidate will submit at the end of the K award should be the *organizing principle* of the K grant application, which includes both a training plan and a research plan.

Career Development Training Plans (cont'd)

- **Make a compelling argument why the mentee needs a K award.**
  - Identify critical gaps or deficiencies in the mentee's knowledge or skills.
  - Explain how additional training or mentored research experience in these areas will enable the mentee to compete successfully for R01 funding.
  - Be specific; provide examples.

Career Development Training Plans (cont'd)

- **Develop a career development training plan that is *uniquely* suited to the mentee.**
  - Given their previous training and research experience, mentees should propose a mix of didactic training and hands-on research experience that address the gaps or deficiencies in their knowledge or skills.
  - Fully exploit the training opportunities available.
  - The training plan should be as carefully thought out and presented as the research plan.

Developing a Mentoring Plan

- Describe your mentoring role.
- If you are the primary mentor, agree to meet with the candidate *weekly* throughout the K award.
- Include an evaluation component where you meet with other co-mentors/advisers as a group *at least* every 6 months to review the candidate's progress.
- Include key milestones, such as completing coursework on schedule and submission of manuscripts and grant applications.
- Keep candidate focused on submitting a *competitive* R01-level application *before* the end of the K award.

Demonstrating Institutional Commitment

- Institution's commitment to protect at least 75% of the candidate's effort for the proposed career development activities.

- Institution's assurance that the institution intends the candidate to be "*an integral part of its research program*."

- These assurances are stated in a letter from the department chair or division chief.

  - Note: For fellows and post-docs, this letter *must* state that they will transition from their current position to a "higher" position (ideally, they will be recruited to a full-time faculty position) during the K award period.

Developing a Mentored K Award Research Plan

- 3 things to remember when designing a research plan for a mentored K award:

  1. The research plan is a <u>training vehicle</u>. The research plan should be well integrated with the candidate's training plan and provide an opportunity to acquire new skills.

  2. The research plan is a <u>means to achieve independence</u>. The research plan should be viewed as a precursor for the next state of research – ideally, an R01.

K Award Research Plans (cont'd)

3. Mentored K awards provide <u>limited funding</u>. The scope of the research plan needs to be appropriate and feasible, given the modest funding provided by a mentored K award ($25K-$50K/year).

- A "modular" approach is possible, which might include several small projects, such as secondary analyses of existing data, leveraging ongoing studies, or conducting a small pilot studies.

- All aims should be relevant and integral to the subsequent R01 grant application.

Insist on Good
Grant Writing Work Habits

<u>Don't let your mentee procrastinate</u>: Time is their greatest resource and most important asset.

1. Make sure they get started early (at least 4-6 months before the grant application is due).

2. Ensure steady progress; the mentee should arrange dedicated time *each week* for grant-writing.

3. Help them get constructive peer review at critical junctures, well before submission to the NIH.

4. Insist that they submit *only* their best work.

   1. Shoot for funding on the 1st round!

Grant Development Resources at UCSF

- **BREAD • Biostatistics, Research Ethics, and Design Program**

  Assistance can be provided in devising appropriate study designs; formulating hypotheses; defining appropriate outcome, predictor, and confounding variables; calculation of sample size and power; outlining appropriate data analysis strategies and tests; and writing or editing sections of the grant application.

  - Up to 5 hours of free consultation for fellows/junior faculty applying for a career development award.

  - Contact information: CtsiBread@ucsfmedctr.org
    Phone: 415-502-7893

Grant Development Resources at UCSF (cont'd)

- **Grant Writing Workshop on Mentored Career Development Awards**
  - 5-week workshop covering K01s, K08s, and K23s.
  - Free of charge/not for credit.
  - Offered 3 times/year: January, May, and September.
  - The next workshop will begin May 5.
    - Register online at: http//www.epibiostat.ucsf.edu/courses/schedule/grant_writing_spring.html