Here is some advice for writing a K99. None of these suggestions are hard and fast rules. Think of each one as something you can do to marginally increase the probability your application will be funded. There are no magic wands, but if you have enough bricks you can build yourself a nice set of stairs.

The K99 is a *career development* award. It is not a *research* award like an R01. The research proposal is the least important part of the entire application. The applications are evaluated primarily on "training potential." This training potential is integrated over the mentor letter, the training plan, and the new skills you will learn by executing the research plan. You need to both explain how your training so far has been awesome and also explain why you need more training. Achieving this balance is both difficult and frustrating.

I. Choosing the right NIH institute

- A. Each Institute devotes very different amounts of money to training awards (T and F) and career development awards (K)
- B. K99 are reviewed by special panels within each institute at the NIH. These panels are different from the normal study sections. Each institute has a different philosophy about the number and kind of K99s they award. As a result, it is very important to choose the right institute.
- C. Go on NIH Reporter and check how many K99 applications each institute receives and what fraction they fund.
- D. The salaries differ (60K at NIGMS; up to 90K at NCI)
 - 1. It is also affected by your institution's pay scale.
 - 2. MD's get paid more, so it can be different in departments with MDs

E. Eligibility

- 1. some use 4 years of "postdoc experience"
- 2. others use 4 years from your defense date
- 3. All of the institutes will give you an extension for a major life event, such as giving birth, taking time off to care for a child or taking time off to care for an ailing relative. One document suggested this extension is automatic, BUT you should formally ask a PO, by email, for this extension in advance. I know of cases where the extension was granted and one hearsay case where it was denied.

F. "Philosophy"

- 1. Some institutes, are trying to shorten the postdoc. They will give K99's to people who have not yet published as a postdoc. (e.g. NINDS)
- 2. Other institutes absolutely require a paper from your postdoc. (e.g. NIDDK)
- 3. If an institute gives other K grants, that can have a big effect on the philosophy
 - a) Very few institutes give K01 grants, but they are generally less competitive.
 - b) Talk to a PO about what they are looking for. Sometimes the written document doesn't emphasize the key parts enough.

G. 1st vs 2nd submission

- 1. Some institutes try to fund first submissions.
- 2. Others pretty much only fund resubmissions

- 3. Most people I know got their K99 during their resubmission.
 - a) i.e. you should apply right at the beginning of your 3rd year as a postdoc.
- H. How to shop for the right institute:
 - 1. Email 1 program officer (PO) at 1 institute.
 - a) ideally start >2 months before the deadline.
 - b) They all talk to each other, so if you send the same email to 2 people, they will know. I made this mistake. It is considered rude.
 - c) Send them your 1 page of specific aims (or a half page draft.)
 - d) Asked them if their institute is interested
 - (1) if not, they will suggest another institute
 - e) Once a PO expresses interest, ask for a phone call
 - (1) I had two phone calls
 - (a) NHGRI: they were interested in the results of my work, but felt that the project was no in line with their core priorities. They gently urged me to apply elsewhere
 - (b) NIGMS: they empathized that the training component of the research plan was the most important part.
- II. The evaluation criteria are:
 - A. Candidate
 - B. Mentor
 - C. Research Proposal
 - D. Training Plan
 - E. Environment
- III. Environment
 - A. The Environment at WashU is outstanding.
 - B. You have very little control over this aspect, so don't worry about it.
 - C. List core facilities and seminar series that will help you
 - D. Collaborators etc.
- IV. Candidate
 - A. You have limited control over this aspect at this point, so don't worry about it
 - B. It can help to figure out if the institute you are applying to is interested in you—it is good if your strengths align with the institutes priorities.
- V. Mentor
 - A. You basically need a senior mentor who has placed multiple postdocs in they type of job you want to get.
 - B. If your primary mentor has not done this, you must directly address this fact multiple times in your application.
 - 1. The best strategy is to add a coMentor who is very senior
 - 2. Or you can have several people on your mentoring committee who are senior
 - C. You must have a mentoring committee of 3-5 people
 - 1. They should have skills they can teach you
 - 2. say you will meet with each of them at least 2x per year.

3. They should also have career advice to help you.

VI. Training Plan

- A. The most important part of the application
- B. List things you will learn:
 - 1. conferences
 - 2. mentoring
 - 3. career development workshops (eg all Office of Postdoctoral Affairs events)
 - 4. Grant writing skills
 - 5. opportunities to present at WashU
 - 6. Writing skills
 - 7. Mentoring Committee
 - a) List them and explain how they will help you
- C. Include new experimental systems or skill you will learn.

VII. Research Plan

- A. Ideally, the K99 aims will:
 - 1. identify an important problem
 - 2. explain why you are a good person to work on this problem
 - 3. explain why you would be the perfect person to work on this problem if you only had 1-2 years to learn to do XYZ technique or new system.
 - 4. Be achievable and safe and incremental. (This is the NIH after all)
 - a) It is very easy to be branded as "too ambitious"
 - b) It is also possible to be dismissed as "too incremental"

VIII.Reflections and concluding thoughts

- A. Everything important should be repeated for emphasis
 - 1. Often in both the research proposal and in the training plan.
- B. The differences in review criteria between research awards (eg R01s) and career awards (K's) can cause a very well meaning PI to give you bad advice. This reality can lead to very awkward moments with your advisor.