Tips for Writing a Career Development Award

Kevin Beier, PhD
Instructor
Psychiatry & Behavioral Sciences
Supporting you in creating proposals
Training you to write and edit efficiently
Empowering you to elicit and provide effective feedback
Providing you with coaching, editing and review

2018 Innovation Grant, Stanford Vice Provost for Teaching and Learning

2016 Innovations in Research Education Award, Association of American Medical Colleges
Upcoming Programming:

• Crafting your Specific Aims Lecture – Aug 21, 2-4 pm
• NIH NRSA F Fellowship: Seminar & Panel Discussion – Aug 23, 5-6 pm
• Grant Coach Office Hours – any time
• Proposal Bootcamp – Sept 24-Nov 16

More at https://grantwriting.stanford.edu
Proposal Bootcamp (Sept 24 – Nov 16)

“The schedule forced me to write”
"The peer review process helped me see my proposal through the eyes of a critical reviewer"
"The faculty review workshops are fantastic and maybe a once-in-a-life kind of experience"
"Meeting up with other people that were 'in the same boat' as me was helpful"

- Structured course with resources
- Weekly meetings to peer review your proposal
- Office Hours available with trained Grant Coaches
- Focused feedback from faculty

NEW in 2018 --- Innovation Grant will sponsor Bootcamp specific for NSF-like proposals
Resources –

https://grantwriting.stanford.edu

• Tips for Planning your Proposal:
  – Ten Simple Rules for Writing a Postdoctoral Fellowship
  – Ten Simple Rules for Writing a Career Development Award Proposal

• Science and Art of Grant Writing - Videos
  – Martha Cyert – Crafting Specific Aims
  – Tim Stearns – Developing the Devilish Details of the Research Plan
  – Tanya Evans – A Formula for Success: Career Development Plans
  – Russ Altman – Optimizing your Ideas

• Grant Coach Videos – by Postdocs, for Postdocs writing proposals!
Questions?

• GrantWritingAcademy@stanford.edu
• cbotham@stanford.edu
Why submit a proposal?

• $$
• Securing funding has positive career benefits
• Critical in all career paths
• Increases productivity and impact
• Clarifies and deepens your thinking
NIH grants by career stage

**Pre-Bac**
- Institutional Training Grant (T34)
- Institutional Training Grant (T32)

**Graduate/Medical Student**
- Individual NRSA Fellowship (F31, F30)
- Institutional Training Grant (T32)
- Individual NRSA Fellowship (F32)

**Post-Doctoral**
- Pathway to Independence Award (K99/R00)
- Mentored Research Scientist Development Award (K01)
- Mentored Clinical Scientist Development Award (K08)
- Mentored Patient-Oriented RCDA (K23)
- Mentored Quantitative RCDA (K25)

**Early**

**Middle**
- Independent Scientist Award (K02)
- Midcareer Investigator Award in Patient-Oriented Research (K24)

**Senior**
- Senior Scientist Award (K05)
GOAL of K Award

• Facilitate a timely transition of outstanding postdoctoral researchers from mentored, postdoctoral research positions to independent, tenure-track or equivalent faculty positions
## Success Rates

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<th>Award type</th>
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<td>22%</td>
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1. Start Early and Gather Critical Information

- Compile possible funding opportunities
- Gather critical information
  - Instructions (SF424)
  - Download the application
  - Gather funded & unfunded examples
Finding Funding: External

National Institutes of Health
Research Training and Career Development

Research Career Development Awards

To provide institutional research training opportunities (including international) to trainees at the undergraduate, graduate, and postdoctoral levels.

1. Select Role
   - Awardee
   - Appointee

2. Select Career Level

APPLICATION FILTER

FAQs
- Who do I contact for questions about my specific application?
- If there are problems with eRA Commons registration or with the grants.gov submission process, where can one get help?
- Who do I contact for questions about my specific institutional training application or training program?
Once you have the document

• Establish a timeline
  – Contact letter writers (ASAP)
  – Contact potential mentors (ASAP)
  – Submit PI waiver (~6 weeks early)
  – Work with your RMG to generate your budget (as early as possible)
  – Grants.gov computer class (earlier, the better)
  – Submit grant internally (5 business days)
1. Give yourself time!

- Specific Aims (1 page)
- Candidate’s background
- Career Goals & Objectives
- Candidate’s Plan for Career Development
- Research Strategy (Together = 12 pages)
- Bibliography
- Biosketch (5 pages)
- Budget (long...work with RMG)
- Equipment
- Facilities and other resources
- Project narrative/project summary (~few lines to a few paragraphs)
- Resource sharing
- Collaborators, contributors, consultants (limited to 6 pages)
- Mentor/collaborator biosketches
- Training in Responsible Conduct of Research (1 page)
- Plans and Statement of Mentors (6 pages)
- Institutional commitment (1 page)
- Description of Institutional Environment (1 page)
- Letters of reference (3-5)
- Vertebrate animals
- Protection of human subjects
- Inclusion statement – women, children, etc.
- Biosafety
- PI Waiver (as early as possible)
- RMG internal deadline (5 business days prior to grant due date)
2. Write for the review criteria

- Read the funding announcement
- Identify the review criteria
- https://grants.nih.gov/grants/peer/critiques/k.htm
3. Construct your specific aims, get feedback

• The aims is the single most important document in your proposal
• It needs to contain (1) your proposal’s importance, (2) what you will do in the appropriate amount of detail, and (3) how the proposal will contribute to your training
• Needs to ignite the reviewers' desire to read more
• The only document all voting members will see

See Grant Writing Academy Video:
Your Research Idea in 1 page — Specific Aims (Crystal Botham)
4. The research plan

• Why is the project needed?
• What is innovative about the project?
• How will the project be completed?
• How long will the project take?
• What are the expected payoffs from the project?
• (1) Background & Significance, (2) Innovation, (3) Research Approach, (4) Timeline, and (5) Conclusions & Future Directions

See Grant Coach Video: A Strategy for Communicating Your Research Strategy (Sky Brubaker)
5. Career development plan

• Construct an advisory committee
• Identify specific training goals
• Identify activities that will enable you to attain these skills
• How will this help you get your own independent grant?
6. Differentiating yourself

• Consider your background and how you are different from your advisor
• Discuss with your advisor about your path for differentiation
• Make sure your advisor’s letter, and your own documents, state this clearly
7. The mentoring team

- Consists of: A primary mentor, an optional co-mentor, and 2-4 additional mentors
- Select a team that complements your strengths
- Get a letter of support from each mentor
  - You may consider drafting these letters yourself
8. How can the present and past propel you to the future?

• What unique skills/approaches do you bring?
• Where do you see yourself in 5 years?
• What do you need to do to get there?
• Make it clear why they should fund you ~4-5 years to reach independence
9. Polish your writing, make it simple

• Make a skeleton diagram of what you want to say
• Get feedback on the ideas, first
• Then build it back up, keeping it simple

See Grant Coach Video: Clarity in Scientific Writing (Kevin Beier)
Also: Kristin Sainani’s Writing in the Sciences online course
10. Weave a consistent story

• Reinforce key points, in multiple documents
  – For example, if you plan to learn a technique from a member of your advisory committee, highlight this in your research strategy, sections concerning your training and career goals, as well as in letters from your mentor and the specific advisory committee member

• The better this is done, the more cohesive (and well thought out) your proposal will be
Common problems:

- Training plans or research strategy not well thought out
- Not hypothesis-driven
- Poor presentation (not proofread, sizing issues)
- Weak institutional support
- Weak publication history
- PI inexperienced
Common problems:

- Mentor not engaged
- Lack of knowledge of published work in field
- Overambitious
- Career directions not clear
- How will differentiate from advisor not clear
- Training plan not sufficiently compelling or detailed
Summary:

• K grants are great for helping launch your independent research career
• They all are mentored training grants, and should be written as such
• Give yourself plenty of time to write the application
• Read past examples, get feedback, and make sure all docs tell a consistent story
Useful resources:

• Grant Writing Academy Website: https://grantwriting.stanford.edu

• K resources: https://researchtraining.nih.gov/programs/career-development

• Previous applicants/award recipients