

What You Need to Know About the NINDS Diversity Faculty Development K01 Award: Tips for Preparing Your Application

- Thank you for joining the webinar. We will begin shortly.
- Listen to the webinar via your computer speakers or dial in using the telephone number provided on the screen.
- Type any questions into the Q&A box. Questions will be addressed after the presentation.
- The recording and webinar resource materials will be available in a few weeks.

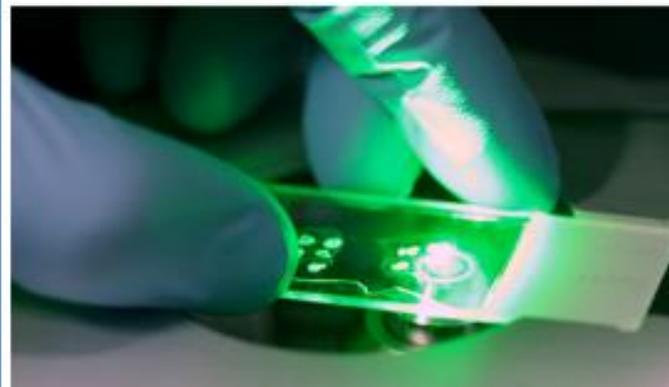


National Institute of
Neurological Disorders
and Stroke

What You Need to Know About the NINDS Diversity Faculty Development K01 Award: Tips for Preparing Your Application

March 22, 2017

2-3 pm EST



Moderator



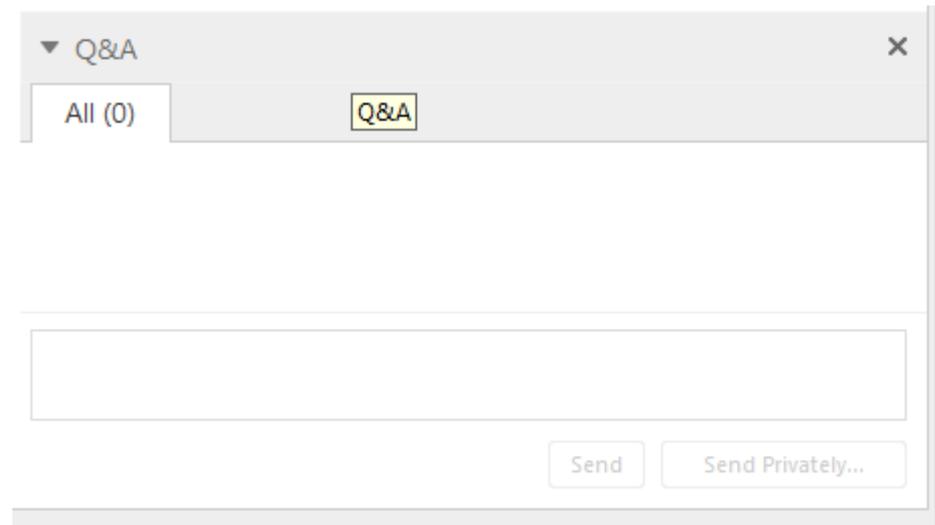
Edgardo Falcon-Morales,
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Contact Us

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Questions

- You will be muted during the webinar
- Type your questions into the Q&A box
- Q&A will be at the end of the webinar



The screenshot shows a Q&A interface with a header bar containing a dropdown menu labeled 'Q&A' and a close button 'x'. Below the header, there are two tabs: 'All (0)' and 'Q&A'. The 'Q&A' tab is active. A large text input field is positioned below the tabs. At the bottom right of the input field, there are two buttons: 'Send' and 'Send Privately...'.

Outline of the Webinar

- Introductions
- Overview of the K01 Mechanism
- Catrina Robinson, PhD, K01 Awardee
- Nidia Quilinan, PhD, K01 Awardee
- Michael B. Robinson, PhD, Career Award Reviewer
- Q&A

Speakers



**Lauren Ullrich,
PhD**
Health Program
Specialist
NINDS



**Catrina Robinson,
PhD**
Assistant Professor
Medical University of
South Carolina



**Nidia Quillinan,
PhD**
Assistant Professor
Department of
Anesthesiology
University of
Colorado, Anschutz
Medical Campus



**Michael B.
Robinson, PhD**
Professor of
Pediatrics/Systems
Pharmacology and
Translational
Therapeutics
Children's Hospital
of Philadelphia
University of
Pennsylvania



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Introduction to the Diversity Faculty K01 Mechanism

Lauren Ullrich, PhD

Program Analyst

Office of Programs to Enhance
Neuroscience Workforce Diversity

NINDS



Introduction to the NINDS Diversity K01

- **Goal:** Diversify the pool of independent neuroscience research investigators by providing junior faculty with research funding, protected research time, and professional development mentorship

**Increase research faculty diversity
in the nation**

**Committed mentor and institutional
commitment**

**Security of funding to produce research results
and papers, leading to tenure**

K01 Eligibility

1. **Individuals from groups nationally underrepresented in neuroscience research**
 - Groups that have been shown by the NSF to be underrepresented in health-related sciences on a national basis: *Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, and Native Hawaiians and other Pacific Islanders.*
 - Individuals with disabilities, defined as those with a *physical or mental impairment that substantially limits one or more major life activities.*
2. Doctoral research degree (Ph.D., Ph.D./M.D. or equivalent)
3. In the **first 3 years** of a **faculty tenure track or equivalent position** at the time of award. Cannot have held major NIH award (R01, P01, P50).
4. By the time of award, the individual must be a citizen or a non-citizen national of the United States or have been lawfully admitted for permanent residence
5. **MUST have NINDS mission relevance!**

K01
(Faculty Development Award)

**Career stage
eligibility**

In the first 3 years of a faculty tenure track or equivalent position

Award

Expectation is that through sustained period of protected research time and career development (3 years), awardees will be able to accelerate their independent research careers and become competitive for new research project grant (R01) funding

Salary up to \$95,000

Research costs up to \$100,000

Main Application Parts

- Candidate and Career Development Plan
 - Background, career goals, career development plan
- Research Plan
 - Sets up direction of your lab
- Mentor, Co-Mentor, Consultant, Collaborators
 - Mentoring plan, letters of support
- Environmental and Institutional Commitment to the Candidate
 - Letter of support, description of environment
- You need the “Man (Woman), Fan, and Plan” and a strong Institutional Commitment

“The Man (Woman!)”: Candidate

- Can the candidate justify the need for further career development as a junior faculty investigator?
- Given the candidate's
 1. *prior training and research record,*
 2. *proposed career development plan,*
 3. *referees' evaluations, &*
 4. *research plan*

Is it reasonable to expect that the candidate will be able to *successfully compete for independent research funding* within 3 years of the start of this award?

“The Fan”: Your Talent Agent

- Mentoring is expected to be appropriate for this stage of career and "quick start" the tenure process (i.e., navigate institutional expectations, scientific networks, and practices that are relevant to productivity and advancement at the institution)
- Each mentor and co-mentor(s) should clearly describe how they will coordinate mentoring of the candidate.

“The Plan:” Research Plan

- Like any other K – does the project have scientific merit?
- The junior faculty member’s intellectual independence from the mentor must be carefully preserved and there should be a clear ownership of the research proposal by the K01 applicant.
- Is the proposed research relevant to stated career objectives?
- Is the research plan relevant to neuroscience research?
- Is there active/pending institutional, start-up package or other support for the proposed research?

Institutional Commitment

- Institution's tenure-track policy should be defined or a description should be provided of the equivalent arrangements for institutions without a formal tenure-track
- Institution should provide a detailed description of the candidate's position, responsibilities, and duties.
- Institution must demonstrate a strong commitment to the development of the candidate by providing protected research time and space needed to perform the proposed research.
- Is there assurance that the institution intends the junior faculty candidate to be an integral part of its current research program?

Common Pitfalls

- Reviewers raise issues about productivity -too few first-author publications, too few recent publications, and publications not of impact.
- Flaws in research plan -no clear alternate approach if predicted outcomes do not occur
- Career development plan does not match with career goals and objectives
- Need a tenure-track or equivalent position, no clear Institutional Commitment

Resources

- [Tip Sheet: Putting Together Your Strongest K01 Application](#)
- Slides from this webinar
- PAR-16-219
 - Read the entire FOA
 - Focus on the required elements and the review criteria
- Application Guide
 - [How to Apply Application Guide](#)
 - Especially Form Instructions (Version D), Career Development (K) Instructions
- NINDS Program Directors
 - Scientific and OPEN staff



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Lessons from a K01 Awardee

Catrina Robinson, PhD

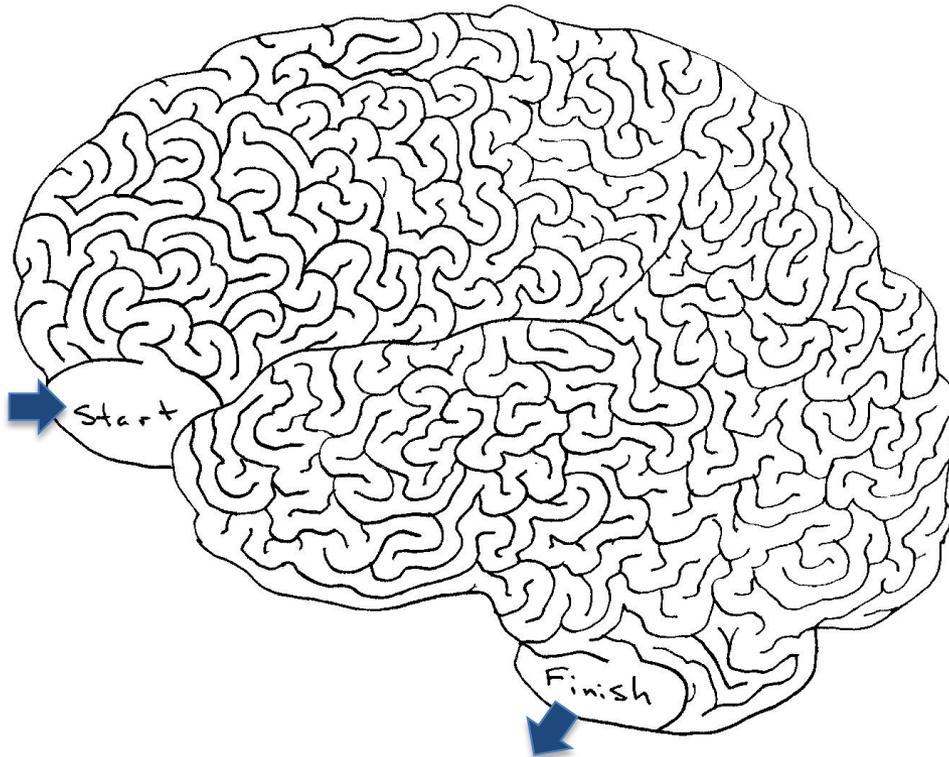
Assistant Professor

Medical University of South Carolina



Start by determining the end

Identifying YOUR research passion!



Your Passion/Career Goal

My post-doc Mentor

Diabetic Peripheral Neuropathy
ALS/neurotherapeutics

My Goal

Strong productive independent
research career focused on the
mechanisms linking metabolic
syndrome and dementia

Identify your needs



- Regulation of glutamate receptors
- Electrophysiology



- Cellular mechanisms of aging
- Molecular Biology
- Role of metabolic disorders in dementia risk
- Models of Metabolic dysfunction
- Alzheimer's disease
- Insulin signaling
- Neurophysiology/Animal Behavior

K01

Mentor Identification

Primary Mentor(s):

- Mentor for every skill you want to gain.
- Primary can help with list of potential mentors
- Don't be afraid to have co-primary mentors

– I had 3!

- 1) Models of Metabolic dysfunction
- 2) Alzheimer's disease
- 3) Neurophysiology/ Animal Behavior

What to look for:

- Approachable
- History of successful mentees
- History of successful funding
- Engaged in your ideas and provides feedback
- Beware of the “sure” whatever you need...

Preparation

- University Resources
 - Colleagues, Mentors, other faculty
 - Office of Research of development or Faculty development
 - Grant Writing workshops/books
- Funded R25 mentoring opportunities

Resources are out there take advantage of them!

Evolve, re-evaluate, and edit

- Don't be afraid to change things
- Keep talking to mentors
- Re-negotiate if necessary
- Talk to program officer again
- Take advantage of resources
- Get your resubmission reviewed
 - 6 weeks before due date

Take home message

- **Summary**
 - **Start** by determining the end
 - **Identify** your needs
 - **Mentor Identification**
 - **Prepare**
 - Feedback is critical to build a strong app
 - **Let it go**
 - **Evolve, re-evaluate, and edit**
- **Keep it SIMPLE**
 - If you can't draw it; re-evaluate and edit



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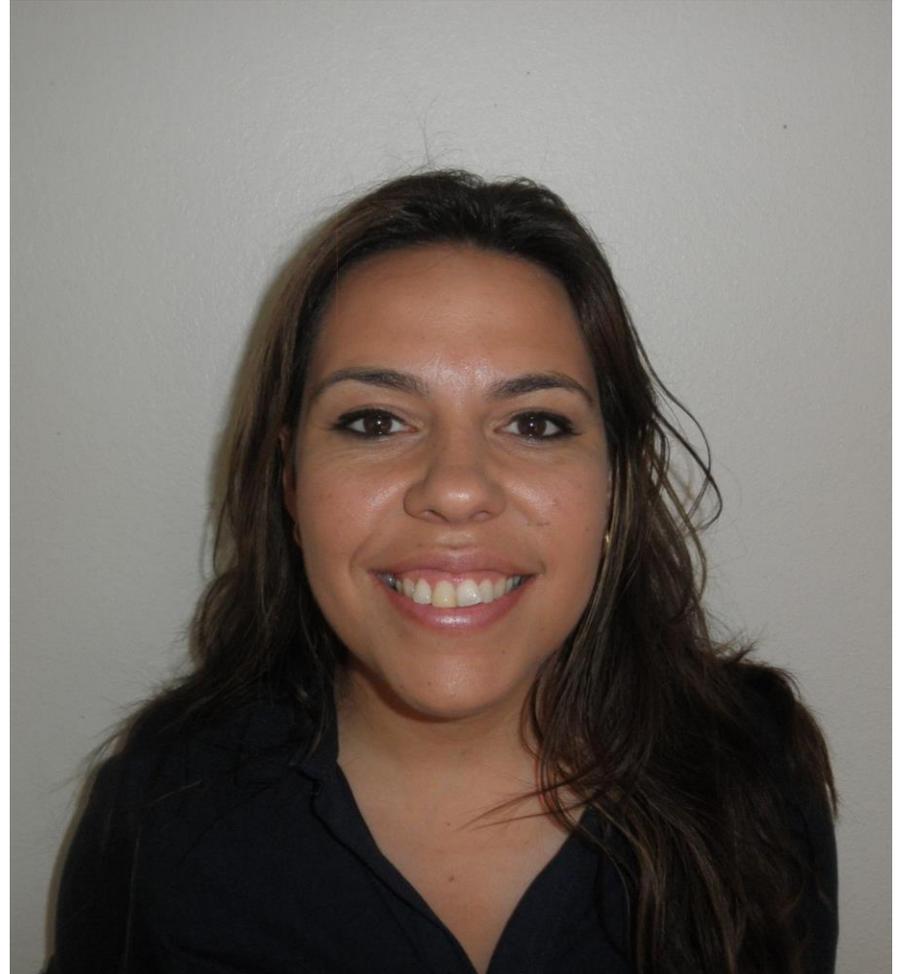
Tips for the K01 application: An applicant's perspective

Nidia Quillinan, PhD

Assistant Professor

Department of Anesthesiology

University of Colorado, Anschutz Medical
Campus



SCHOOL OF MEDICINE

Department of Anesthesiology

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Why the K01 was right for me

- **Career stage:** First year of tenure track faculty position.
- **Candidate:** Strong publication record in brain ischemia and neurophysiology but needed time to develop my independent niche combining the two expertise within the cerebellum. Previous record of obtaining independent funding (F31 and AHA Postdoc).
- **Gap-specific plan:** had an area that needed to be developed beyond what was completed in my postdoc to move towards a strong R application; professional development to ensure success as a junior faculty.

Preparing my proposal

- Submitted months prior to beginning faculty position. Chair and mentor letters need to demonstrate strong support for the applicants success as an independent faculty.
- Mentor team: Postdoc mentor (primary), vice-chair for research, faculty with expertise in method proposed.
- Career plan - Technical and professional training that was needed to achieve independence.
- This is a detailed proposal that requires supporting documentation from mentors and institutional delegates. Give departmental administration several months notice of intent to submit and be prepared to draft letters.

A0 - discussed, not funded

- Score comes weeks before comments...sit tight and focus on moving active projects forward. Resubmission of first-author publications was top priority during this time.
- Discuss comments with mentors and program officers for guidance on responding to reviewer comments. What were score driving critiques?
- Was this the right mechanism?
- Prepare timeline for addressing comments and resubmission.

Critiques from A0 application

- Publication record – first authors were submitted but not in press
- Independence – primary mentor was postdoctoral mentor and was not changing institutions
- Research plan – cerebellar specific readout for ischemia induced functional deficits
- Wordy writing style – moved towards bulleted sections and tables, especially for career plan

A1 Resubmission Plan

- Timeline – skipped one cycle to allow for publication of 2 first-author manuscripts
- Mentor team – Postdoc mentor became a secondary mentor. Added additional mentor with expertise in cerebellar-specific behavioral tasks and neurophysiology.

A1 Resubmission Plan

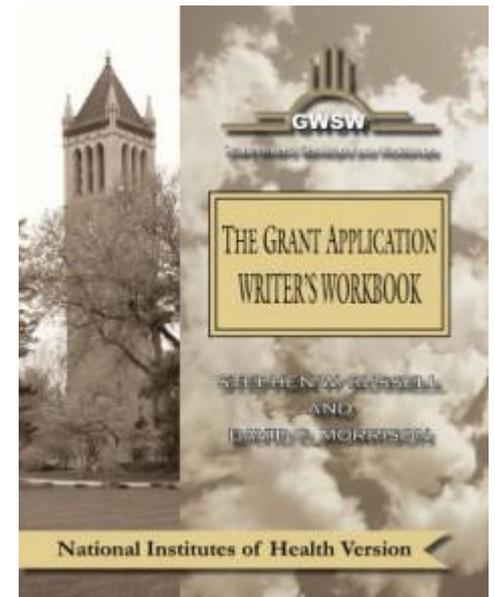
- Independence
 - Chair letter: strong commitment to dedicate resources to applicant independent of K01 application. Space, salary support, time dedicated to project, start-up funds.
 - Mentor letter: clear plan of how mentor will help applicant transition to independence. Will applicant be senior author on publications? Does mentor have ongoing studies that are overlapping with applicants projects?
 - Research plan – added cerebellar-specific readouts and summary paragraph that showed a clear path towards this project being developed into an R01 application.

A1 Rebuttal – funded

- Still some concern about independence from postdoc mentor
 - *Her research focus on the role of the cerebellum in outcome following cerebral ischemia is completely unique and not an area that has any overlap with my current ongoing studies, other than obvious technical methods. As her work progresses and she increases her funding and hires fellows, I expect her to publish her research as senior author without my name appearing on her manuscripts.*
- Addressed other minor concerns regarding research approach

Tips for K01 applicants

- Start preparing application at least 6 months prior to deadline. Should be sent to mentors and additional reviewers at least 2 months prior to deadline.
- Take advantages of all resources – institutional faculty development programs, mock study sections, workshops, online tools.
- Look at examples of others grant applications. Can get a lot of insight into writing and formatting styles that allow you to clearly guide the reviewer.





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The Reviewer's Perspective

Michael B. Robinson PhD

Professor of Pediatrics/Systems
Pharmacology and Translational
Therapeutics

Children's Hospital of Philadelphia
University of Pennsylvania



Elements of Today's Presentation

- Review Process/Criteria
- Tips on Preparing Your Application
- Responding to Concerns

- Grant assigned to a study section
 - Membership is online
- Reviewed by 3 members (written comments/scores before meeting)
- Meet for 2 days
 - (30-50% of grants not discussed)

Scored Review Criteria

- Candidate
- Research Plan
- Career Development Plan/Career Goals and Objectives
- Mentors, Co-mentors, Consultants, Collaborators
- Environment and Institutional Commitment

Candidate

- Biosketch, letters of recommendation, quality of application
 - Prior training
 - Quality and quantity of publications
 - Strong letters of recommendation
 - Evidence of commitment to becoming an independent investigator

Research Plan

- Is there a strong premise (rationale)?
 - Feasible and likely informative
- Hypothesis-driven
- Well-designed (stats/power etc)
- Will it lead to an R01?

Career Development Plan

- **Gap-Based** (where are you now and where do you want to be, what do you need to get there)
- **Content appropriate**
- **Is there a plan for monitoring progress with goals?**

- Qualified
- Experienced
- Complement the plan
- Logically organized

(support transition to independence)

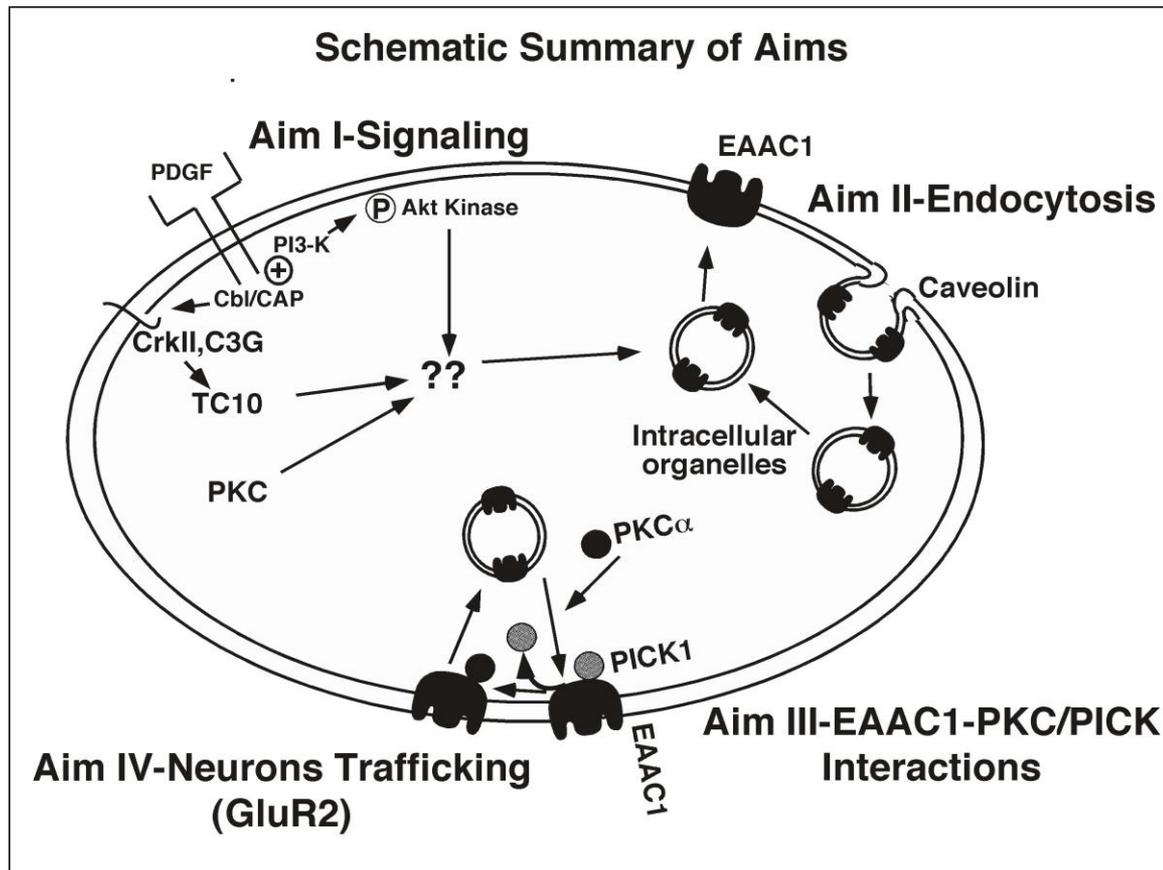
Environment and Institutional Commitment

- Clear commitment to protected time
- Clear plan for fostering candidate's development
- Resources (space, equipment, ability to further impact diversification of workforce)
- Clear commitment to applicant's becoming an integral part of program

- Print/read program announcement & NINDS tip sheet (write notes to yourself)
- Get copies of successful applications
- Look at expertise of review panel
- Write the aims early
- Have complete draft of everything 6-8 weeks before due date (get feedback)

- Abstract/specific aims tell whole story (not just the science)
- Significance (~0.5 page)
- Innovation (~0.25 pages)
- Research plan (the rest)
 - Summary
 - Rationale (Background and preliminary data)
 - Experimental Plan
 - Anticipated Results
 - Potential problems/alternative strategies

- Use Schematics if possible



- Empathize with the reviewers (10-12 grants)
 - KISS-Keep it simple stupid!
 - Leave white space between each paragraph
 - Use appropriate font
- If you see an issue, the reviewers will too.
 - Acknowledge it and address it.

Responding to the Review

- Clearly respond to each concern
 - (when the concern is not clear, indicate how it was interpreted)
- If the reviewers did not see it, it is your fault for not making it clear
- Read between the lines
 - (reviewers don't like to say you are a weak candidate or ideas are not good, look for the absence of positive statements)
- Follow instructions-vertical lines in a margin or...

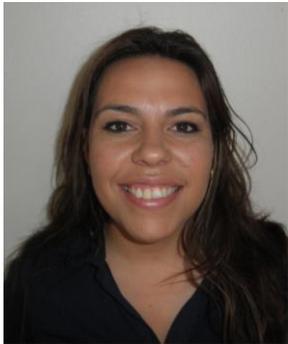
Q&A



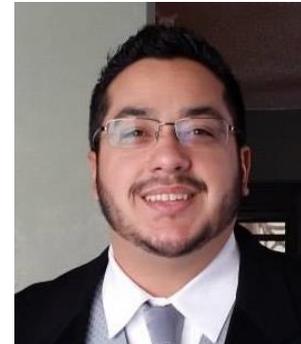
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Diversity is not a problem.
It's the solution.

NINDS Office of Programs to Enhance Neuroscience
Workforce Diversity (OPEN)

For diversity training questions, please contact: **Dr. Michelle Jones-London**, Chief, OPEN