# The NIH Transition Career Development Awards: An Overview

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**SITC Grant Writing Workshop**
**National Harbor, MD**
**November 9, 2017**

NIH › NATIONAL CANCER INSTITUTE

November 9, 2017

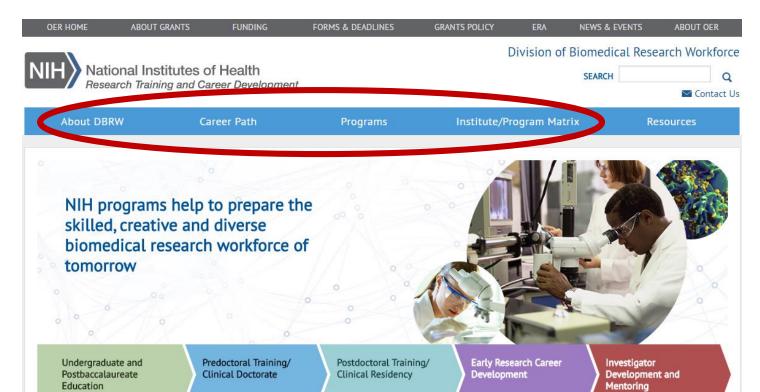## *Disclosure Information*
## *Sonia B. Jakowlew, PHD*

**No Relationships to Disclose**

# *Presentation Outline*

- **Description & eligibility requirements for Transition K awards**

- **Unique features of K applications**

- **What reviewers look for & emphasize**

- **What applicants should provide – How to set yourself apart**

- **What makes a successful K application**

- **Submission, review, resubmission & awarding processes**

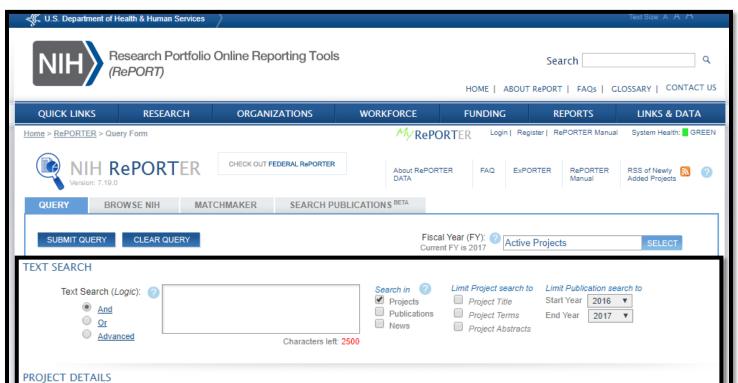- **Application Tips – Dos & Don'ts (Handouts)**

# *Find the Right Award*

- **Identify an NIH Institute that fits your research interests - [www.nih.gov](www.nih.gov)**

- **Find a funding mechanism that fits your career stage
[https://researchtraining.nih.gov](https://researchtraining.nih.gov)**

# *Use NIH RePORTer*

- **Search for recently funded grants on topics like yours (find an Institute)**
- **Avoid submitting ideas that have already been funded**
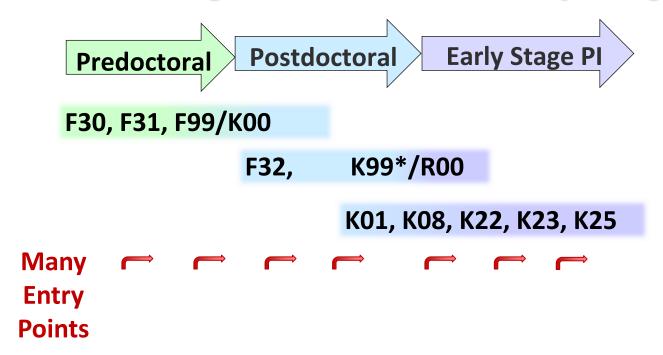
## https://projectreporter.nih.gov

# Institute-Specific FOAs (Funding Opportunity Announcements)
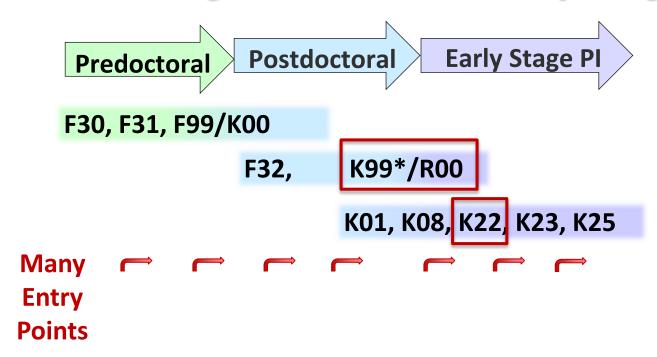## www.cancer.gov/cct

# NIH Funding for Trainees at Every Stage

**Predoctoral** → Postdoctoral → Early Stage PI

**F30, F31, F99/K00**

**F32,        K99*/R00**

**K01, K08, K22, K23, K25**

**Many
Entry
Points**

*Open to Applicants with US Visas

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# *NIH Transition K Awards*

## Mentored/Independent Award

- K99/R00 NIH Pathway to Independence Award, PA-16-193

## Independent Awards

- K22 NCI Transition Career Development Award, PAR-16-293
- K22 NCI Transition Career Development Award to Promote Diversity, PAR-17-069
- K22 NIAID Career Transition Award, PAR-16-434

# NIH K99/R00 Pathway to Independence Award
# PA-16-193

<u>Objective:</u>    **To assist extramural & intramural NIH postdoctoral investigators in transitioning to a independent research position**

<u>Candidate:</u>    **Fellows with no more than 4 yrs postdoctoral research experience**
**No citizenship requirement**

<u>Research:</u>    **Institute-specific research (ie cancer-focused research for NCI)**

<u>Mentor:</u>    **Mentorship in both research and career development;**

**Supports the candidate's transition to independence**

<u>Award:</u>    **K99 phase (2 yrs): Up to $50-100 K plus fringe benefit; $\geq$75% professional effort**
**Pays up to $20-50 K research support;**
**R00 phase (3 yrs): $249K/yr**

# NIH K22 Transition Career Development Awards: PAR-16-293 (NCI), PAR-17-069 (NCI), PAR-16-434 (NIAID)

<u>Objective:</u> To facilitate the transition of extramural & intramural NIH investigators from the mentored to the independent stage of their careers

<u>Candidate:</u> Postdoctoral/clinical investigators pursuing careers in cancer (NCI) or allergy/infectious diseases (NIAID) focused research
Mentored postdoctoral training (NIAID <u>< 5</u> yrs; NCI <u>></u> 2 yrs <u><</u> 8 yrs)

Currently in mentored, non-independent positions

<u>Award:</u> Salary plus fringe benefits – Up to $50 K (NIAID); $100 K (NCI) /yr; <u>></u> 75% professional effort

Research costs – Up to $50 K (NCI); $100 K (NIAID) /yr;
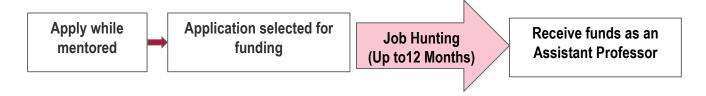
Length – Up to 2 yrs (NIAID); 3 yrs (NCI);

US citizenship or permanent residency at time of award;

Submit an R01 application by the end of the 2nd year (NCI)

# K22 Transition Career Development Awards
## NCI & NIAID

- **K awards that you can apply for while still in a mentored, non-independent (postdoctoral) position**

- **Receive the award once you start your first independent (tenure-track) academic position**

| Apply while mentored | → | Application selected for funding | Job Hunting (Up to 12 Months) → | Receive funds as an Assistant Professor |
|---|---|---|---|---|

- **Expectation: Awardees will launch successful independent careers in cancer (NCI) or allergy/infectious disease (NIAID)-focused research & become more competitive for R01 research project grant funding**

# Unique Sections of K Applications

## Components in an Application: R01 vs. K

### R01

| Section of Application | Page Limits |
|---|---|
| Specific Aims | 1 |
| Research Strategy (Significance; Innovation; Approach) | 12 |
| | |
| | |
| | |
| | |
| | |
| Biographical Sketch | 5 |

### K

| Section of Application | Page Limits |
|---|---|
| Specific Aims | 1 |
| Candidate Information and Goals for Career Development and Research Strategy | 12 |
| Training in the Responsible Conduct of Research | 1 |
| Plans and Statements of Mentor and Co-mentor(s) | 6 |
| Letters of Support from Collaborators, Contributors & Consultants | 6 |
| Description of Institutional Environment | 1 |
| Institutional Commitment to Candidate's Research Career Development | 1 |
| Biographical Sketch | 5 |

# *Preparing to Write a K Application: Initial Steps*

- Step 1: Read the program announcement & access information at NIH Institute website (NCI CCT: http://www.cancer.gov/CCT)

- Step 2: Note the review criteria

- Step 3: Draft specific aims

- Step 4: Contact the program director *early* if needed
  - Email is most efficient; send
    - CV/biographical sketch
    - Draft of specific aims
    - Specific questions
  - Feel free to follow up with additional questions

# *K Award Review Criteria*

1. **Candidate**

2. **Career Development Plan/Career Goals & Objectives**

3. **Research Strategy**

4. **Mentors & Co-Mentors (K99/R00)**

5. **Collaborators, Contributors & Consultants**

6. **Environment & Institutional Commitment**

# 1. Candidate Information & 2. Career Development Plan

**What Do Reviewers Look For?**

- **Applicant qualifications**

- **Command of research area with big picture view**

- **Potential for making scientific contributions**

- **Potential for developing an independent research career**

- **Justification about need for & benefit from the K award**

**What Should Applicants Provide?**

- **A genuine/compelling story**

- **Experience/Accomplishments**

- **Clearly stated goals**

- **A thoughtful career development plan with specifics that takes advantage of the opportunities afforded by the K award**

- **Strategies to address gaps in skills & knowledge**

# 3. Research Strategy

**What Do Reviewers Look For?**

- **Interesting & significant questions**

- **Hypothesis-driven study**

- **Well-designed, innovative approaches that test the hypothesis**

- **Feasibility**

- **Anticipated results, pitfalls & alternatives**

**What Should Applicants Provide?**

- **Adequate background information that creates a compelling rationale**

- **Strong preliminary data**

- **Highlighted disease focus**

- **Focused study that can be completed by award's end**

- **Interpretation of expected results, likely problems & solutions**

- **Use "I", not "We", whenever possible**

# 4. Plans & Statements of Mentors & Co-Mentors

**What Do Reviewers Look For?**

- **Mentor(s) with the expertise and resources to support the applicant's research**

- **Track record of training mentees**

- **Mentor(s) committed to the applicant's career development**

- **A mentoring plan customized for the applicant**

- **Strong mentor/mentee interactions**

**What Should the Mentor(s) Provide?**

- **A personalized & detailed mentoring plan with specifics that addresses applicant's needs**

- **Adequate expertise (pubs), resources, funding & prior mentoring experiences**

- **NIH biosketch**

- **Clear statement supporting the applicant's career development**

# 5. Letters of Support from Collaborators & Contributors

### What Do Reviewers Look For?

- **Statements that address the needs of the proposed research in the form of expertise, reagents, technology, etc.**

- **Commitment (collaborators)**

### What Should Applicants Provide?

- **Clear, to the point, statement about what will be provided to or done for applicant**

- **If necessary, clarify their supportive roles**

- **Biosketches (collaborators)**

- **NOT Letters of Recommendation!**

# 6. Environment & Institutional Commitment

**What Do Reviewers Look For?**

- **Quality & reputation of institution**

- **Resources & facilities**

- **Opportunities for professional development**

- **Descriptions specifically relevant to the applicant**

- **Some tangible commitment from the institution**

**What Should Applicants Provide?**

- **Detailed letter written specifically for the applicant**

- **Available facilities & resources**

- **Clear signed statement supporting the applicant's career development & specific commitment the institution plans to provide**

- **Engage the Chair/Dean 2-3 months prior to the due date**

# *What Makes a Successful NIH K Application?*

- **Candidate: Well-trained; relevant 1st author publications**
- **Career Development Plan: Customized; potential for growth; benchmarks**
- **Specific Aims: Well-defined; hypothesis-driven; mechanistic**
- **Research Project: Innovative; significant; cancer-focused**
- **Preliminary Data: Extensive; solid; rigorous; convincing**
- **Research Plan: Logical; well-written; feasible; alternatives**
- **Mentor: Accomplished; expertise, independent funding; history of mentoring**
- **Institutional Commitment: Resources; facilities; help to achieve independence**
- **Justification: Need for protected time**
- **Reference Letters: Outstanding; customized**
- **Collaborators (letters, biosketches) & advisory committee (K22)**

# *NIH K Award Application Receipt & Review*

| | Cycle I | Cycle II | Cycle III |
|---|---|---|---|
| **New Application Due Date** | **Feb 12** | June 12 | Oct 12 |
| **Resubmission Due Date** | **March 12** | **July 12** | **Nov 12** |
| **Scientific Merit Review** | **June** | **October** | **February** |
| **Council Review** | **October** | **January** | **May** |

# *NIH K Application Submission*

- Submit early (> 2 days before the application due date)

- Download application during the 2-day application viewing window
  - Reread application carefully
  - Check for errors & warnings & revise immediately if obtained
  - Viewing window closes at 5 PM local time on due date
  - Applications cannot be revised after due date
  - Contact eRA Commons HelpDesk with problems

- Track your application in your eRA Commons account

- Check that letters of reference have been received by due date

# *NIH K Application Review*

- **K applications to NIH are reviewed by study sections comprised of expert researchers**
  - **Organized by specific NIH Institute**
  - **Disease focus needs to be emphasized**

- **All applications for a given NIH K award are reviewed in a single study section comprised of expert researchers with various expertise**
  - **Write the research proposal in a way that generalists will understand and appreciate**

# NIH K Application Post Review: Score & Summary Statement

- **Impact Score posted to eRA Commons account 3 days after review**

- **Summary Statement posted to eRA Commons account 6-8 weeks after review**
  **Program Director can be contacted at this time**

  - **Impact Score Ratings**
    - **Upper 50% = Discussed**
      - **Impact Score**
      - **Resume/Summary**
      - **Written critiques**
    - **Lower 50% = Not Discussed (++)**
      - **No Impact Score**
      - **No Resume/Summary**
      - **Written critiques**

# NIH K Application Post Review: Potential Outcomes

## Contact Program Director to Discuss

- **If application was discussed & scored: Options**
  1. If PD is Optimistic about funding – Expect an award (K99/R00) or Letter of Intent to Commit Funds (K22) & begin searching for tenure-track faculty position (K22)
  2. If PD is Less/Not Optimistic about funding – Prepare a resubmission or new application if still eligible

- **If application was not discussed: Options**
  1. Resubmit if still eligible
  2. Submit a new application if still eligible

# *NIH K Application Resubmission*

- **Should you resubmit?**

  - **Yes, if you can respond well to all reviewers' comments to design a more competitive application**
  - **Resubmissions tend to fare better than new applications**

- **If you resubmit:**

  - **Thank the previous reviewers**
  - **Respond to all reviewers' comments in the 1-page Introduction section**
  - **Revise/update research & career development plans**
  - **Add updated statements of support to application**
  - **Request new letters of reference**
  - **1 resubmission is permitted**

# *New NIH K Application*

- Should you submit a new application?

  NIH allows submission of new applications without concern for scientific overlap with previously reviewed applications

  - If you cannot respond well to all reviewers' comments or
  - If you have already resubmitted one time

- If you submit a new application:

  - Use the previous reviewers' comments to design a more competitive application
  - Add updated or new statements of support to application
  - Request new letters of reference

# *Contacts for NIH K Questions/Answers*

- **Before Application Submission & After Summary Statement Issued**
  **Program Director (PD)**

  **Found in Funding Opportunity Announcement (Program Announcement)**

- **After Application Submission & Before Review Meeting**
  **Scientific Review Official (SRO)**

  **Found in eRA Commons**

# *Take Home Lessons*

- **Read the current specific program announcement**

- **Understand what the reviewers look for**

- **Understand what applicants should provide**

- **Contact the Program Director early if needed**

- **Submit your application early – at least 2 days prior to due date**

- **K applications are reviewed by study sections of expert researchers organized by specific NIH Institutes**

**National Cancer Institute**

**Center for Cancer Training**

**Cancer Training Branch**

**http://www.cancer.gov/CCT**

**Tel 240-276-5630**
**Fax 240-276-5659**

**Thank you !**

www.cancer.gov        www.cancer.gov/espanol

# *1. Candidate: Application Tips*

- **History scientific biography – systematic research progression plan**

- **Research experiences – graduate school & postdoc(s)**

- **Mentoring – as a mentee & as a mentor**

- **Collaborations – unique reagents & expertise**

- **Didactic training – special skills & perspectives**

- **Scientific productivity – peer-reviewed 1st author articles, corresponding authorships, patents, editorial boards, journal reviewer (ad hoc), models, equipment, software ...**

**\*Are you preparing to become an independent investigator?**

# 2. *Career Development Plan/Career Goals: Application Tips*

- **Systematic research career progression plan – Timeline**

- **Current & long-term research & career objectives**

- **Highlight your commitment to research**

- **Demonstrate your potential for independence**

- **Customize CDP activities to fulfill goals – leadership, financial & lab management, communication, teaching, grant writing, publications, collaborations, conferences…**

- **Plans for an advisory committee; No Mentor**

  **\*Will your CDP help you to become an independent investigator?**

# *3. Research Strategy: Application Tips*

- Sound & detailed research plan: Impact/Significance/Novelty/Creativity
  - Innovative, hypothesis-driven; disease-focused; **paradigm-shifting**
  - High likelihood to significantly enhance the field
  - Sufficient background & significance; strong scientific premise
  - Public health relevance to cancer problems
  - Preliminary data – Disease-focused, convincing; rigorous; **published**
  - Design/rationale/approach – Mechanistic insights; robust; unbiased
  - Address possible pitfalls & consider alternatives
  - Timetable & future directions
- Skills, techniques & scientific perspectives for independence
  **\*Does your research plan have the potential to lead to a competitive R01-funded research program?**

# 4. *Plans & Statements of Mentors & Co-Mentors: Tips*

- Name a primary mentor with accomplishments and expertise in proposed cancer research area & with responsibility for program; may also name co-mentor(s) if needed

- Primary mentor should have history of mentoring & placing independent investigators & sufficient current independent funding (R01 or equivalent) & history of funding

- Describe nature of mentoring to be provided

- Provide a plan for career progression from mentored stage to independence for research & publications

*Will your mentor(s) help you to become an independent investigator?

# 5. Collaborators, Contributors & Consultants: Application Tips – Statements of Support

- **Statements/Letters of Support – Signed**
  - **Collaborators**
  - **Contributors**
  - **Consultants**

- **Collaboration and interaction**
  - **Reagents**
  - **Techniques**
  - **Statistical analysis**
  - **Pathology**
  - **Grant writing**
  - **Others**

- **Append & upload letters as 1 PDF with application**

- **Include biosketches of collaborators with application**

**\*Will the collaborators/contributors help you to achieve research goals?**

# 6. *Environment & Institutional Commitment: Application Tips*

**Describe:**

- Scientific environment (faculty, resources, facilities) <u>available</u> to you to secure a tenure-track faculty position at a <u>sponsoring</u> institution

- Ability to <u>assist</u> you in career progression to a tenure-track faculty position

- Ability to <u>assist</u> you in your development into a productive, independent investigator

  *How committed is the submitting institution to assisting you?

  *Submitting institution should assist in your career development