Applying for NIH Career Development Awards: options, interactions with NIH staff, and tips for submitting a strong application

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NIH > NATIONAL CANCER INSTITUTE

K-Club
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Individual Career Development Awards (K-grants)
(early-stage investigators)

- **Designed to foster the transition of early career stage researchers to research independence**

- **Provide:**

    - "Protected time" for research and training (3-5 years)

    - Salary + fringe benefits; R&D support

- Minimum 75% effort **required** (with some rare exceptions)
  Example: NCI K08 award allows 50% for surgeon-scientists

- **Mentored** K-awards must identify a mentor and/or mentoring team
  Example: NCI K22 award is non-mentored

K-grants: options = eligibility

- **U.S. citizen/permanent resident or U.S. visa holder?**
  - *Example: U.S. visa holders can apply for K99*

- **Career stage/position title**
  - *Example: independent research faculty not eligible to apply for K99, K22 (NCI)*

- **Has held independent position(s) in the past?**
  - *Example: K99, K22 (NCI) eligibility*

- **Number of post-degree years**
  - *Example: > 4 yrs for K99, > 8 yrs for K22 (NCI)*

- **Funding track record**
  - *Example: individual K-grants, PI or MPI on R01-equivalent*
    K99: any type of RPG: R01, R21, R03

Your options could depend on NIH IC

Are You Eligible?

K-grant options and requirements depend on NIH IC

- **Not every NIH IC signs on every available K-grant program announcement**
  - *Example*: only 12 NIH ICs signed up on K25 program announcement

- **NIH IC can have specific requirements - <u>always check IC-specific information</u>**
  - *Example*: NCI does not have limits on cumulative support K12(KL2)+K08
    NCI requires a copy of active U.S. license included in K08 application

- **NIH IC can have unique funding opportunities or specific eligibility requirements**
  - *Example*: NCI Early K99/R00 award
    NCI's K01 is for diversity applicants only

- **NIH ICs can have different salary/research support for the same K-award**
  - *Example*: K08 salary support up to $199,300/yr (NCI) vs. $100,000/yr (NIDDK)
    K08 R&D support up to $50,000/yr (NCI) vs. $25,000/yr (NIDDK)

NCI Individual Career Development Awards

Mechanism	Typical Candidates/Eligibility requirements	FOA
K99/R00	Postdocs with > 4 years of postdoctoral <u>research</u> experience; *U.S. visa holder can apply;* K99 phase (up to 2 yrs), R00 phase (up to 3 yrs)	PA-20-187/8/9
K08	Non-tenured junior faculty level U.S. licensed (NCI) clinician-scientists; U.S. citizens/permanent residents; 3-5 yrs	PA-20-201/2/3
K25	Quantitative researchers or engineers; US citizens/permanent residents; 3-5 yrs	PA-20-197/8/9
Early K99/R00	Postdocs with > 2 years of postdoc <u>research</u> experience; *<u>nominated by institution</u>; U.S. visa holder can apply;* K99 phase (up to 2 yrs), R00 phase (up to 3 yrs)	RFA-CA-21-060/1/2
K22	2-8 yrs of postdoctoral cancer research experience; <u>non-mentored award</u>; U.S. citizens/permanent residents; up to 3 yrs	PAR-21-111/128/318
K01-diversity	2-5 yrs of postdoctoral research experience; U.S. citizens/permanent residents; 3-5 yrs	PAR-21-295/6
K22-diversity	2-8 yrs of postdoctoral research experience; <u>non-mentored award</u>; US citizens/permanent residents; up to 3 yrs	PAR-21-301/2
K08-diversity	clinician-scientists; U.S. citizens/permanent residents; 3-5 yrs	PAR-21-299/300

Examples of scientific field-specific Funding Opportunity Announcements

Career Development Awards in Tobacco Regulatory Research (NIDA, NCI, NHLBI, NIEHS)

- Pathway to Independence Award in Tobacco Regulatory Research (K99/R00)
    - *RFA-OD-20-009, RFA-OD-20-010*

- Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01)
    - *RFA-OD-20-008, RFA-OD-20-011*

researchtraining.nih.gov/programs/career-development

OER HOME   ABOUT GRANTS   FUNDING   FORMS & DEADLINES   GRANTS POLICY   ERA   NEWS & EVENTS   ABOUT OER

NIH National Institutes of Health
Research Training and Career Development

Division of Biomedical Research Workforce

SEARCH 🔍 FAQs

✉ Contact Us

About DBRW   Career Path   Programs   Institute/Program Matrix   Resources

Training   Fellowships   Career Development   Other Training-Related

Research Career Development Awards

RTCD Home > Programs

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

1. Select Role
   Awardee   Appointee

2. Select Career Level
   Select ▼

APPLY FILTER
RESET FILTER

K01   Mentored Research Scientist Career Development Award
For support of a postdoctoral or early career research scientists committed to research, in need of both advanced research training and additional experience.

Details   📣 View Current Funding Opportunities

K02   Independent Research Scientist Development Award
For support of an early to mid-career scientists with research funding, in need of additional protected time committed to research.

Details   📣 View Current Funding Opportunities

K05   Senior Research Scientist Award
For the support of a senior research scientist with research funding, to pursue independent research, and to serve as a mentor to more junior research scientists.

Details   📣 No Funding Opportunity Announcement Currently Available

FAQs
- When submitting a K99/R00 application which involves human subjects, do I need a study record for each phase?
- 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 grant?
- Do Training Grants have pre-award cost authority?
- NIH uses a formula to calculate what would be awarded for tuition/fees and training related expenses on institutional training grants. Should the grantee use this formula as part of their requested budget in a competitive grant?

View More

Policy Notices
- NOT-OD-21-177: Announcement of Childcare Costs for Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Awards
- NOT-OD-21-074: Announcement of Childcare

NIH K-kiosk

reporter.nih.gov

FAQs API ExPORTER (Beta) Sign In

Quick Search
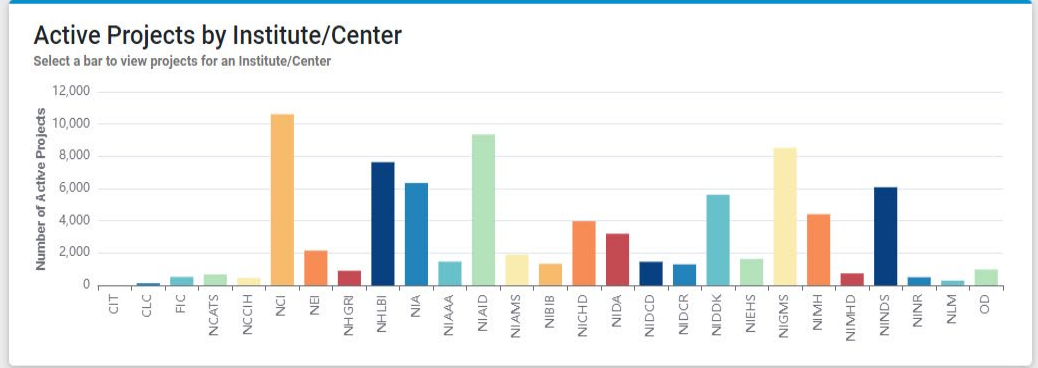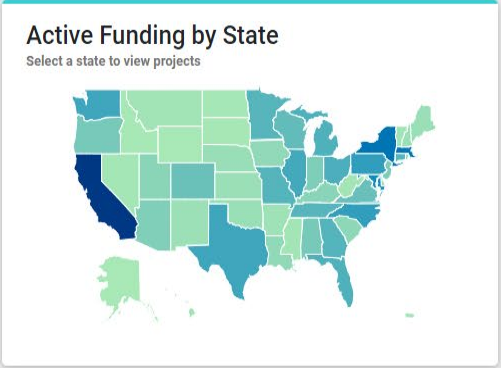
Search RePORTER **Search**

Enter just about anything in the RePORTER Quick Search box above (text, PI names, project numbers, fiscal year, agency) or launch the Advanced Search to precisely configure searches using separate search fields.

Advanced Search

Welcome to the NIH RePORTER

Each award supported by NIH promotes efforts to seek fundamental knowledge about the nature and behavior of living systems and/or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
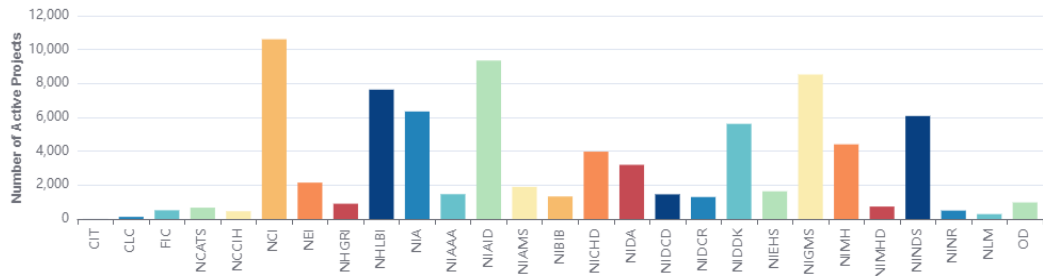
Guided Tour Feedback

Active Funding by State
Select a state to view projects

Active Projects by Institute/Center
Select a bar to view projects for an Institute/Center

Number of Active Projects

12,000
10,000
8,000
6,000
4,000
2,000
0

CIT CLC FIC NCATS NCCIH NCI NEI NHGRI NHLBI NIA NIAAA NIAID NIAMS NIBIB NICHD NIDA NIDCD NIDCR NIDDK NIEHS NIGMS NIMH NIMHD NINDS NINR NLM OD

Advanced Projects Search

Fiscal Year ?

Active Projects

Current FY is 2022

Principal Investigator (PI) ?

PI Names or Profile IDs, semicolon ";" separated

Organization ?

Enter at least 3 characters to search

Matchmaker

Find potential Program Officials, ICs, and review panels for your research.

Get Started >
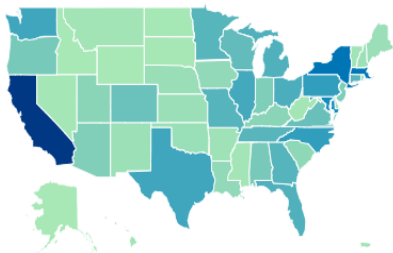
Was this page helpful? Yes No

Active Funding by State
Select a state to view projects

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Advanced Projects Search

Search using specific criteria to find **NIH projects** and **funding information**.

Get Started ❯

Publications Search

Find publications associated with extramural or intramural funded projects using PubMed IDs (PMID) or PubMed Central IDs (PMC ID).

Get Started ❯

Matchmaker

Enter abstracts or other scientific text to find potential Program Officials, ICs, and review panels for your research. ❓

🔘 Similar Projects
⚪ Similar Program Officials

15,000 characters left

Reset   Search

NIH **RePORT**
Research Portfolio Online Reporting Tools

Research   Organizations   Workforce   **Funding**   Reports   Links and Data   About   Contact   FAQ

Success Rates

NIH success rates

1. NIH Success Rate Definition (~68KB)
2. Research Project Grants and Other Mechanisms: Competing applications, awards, success rates, and funding, by Institute/Center, mechanism/funding source, and activity code (~480KB)
3. SBIR and STTR: Competing applications, awards, success rates, and funding, by phase and state (~28KB)
4. SBIR and STTR: Competing applications, awards, success rates, and funding, by phase (~188KB)

Research Project Grants

Training and Research Career Development Programs

Download Reader:

Success Rates

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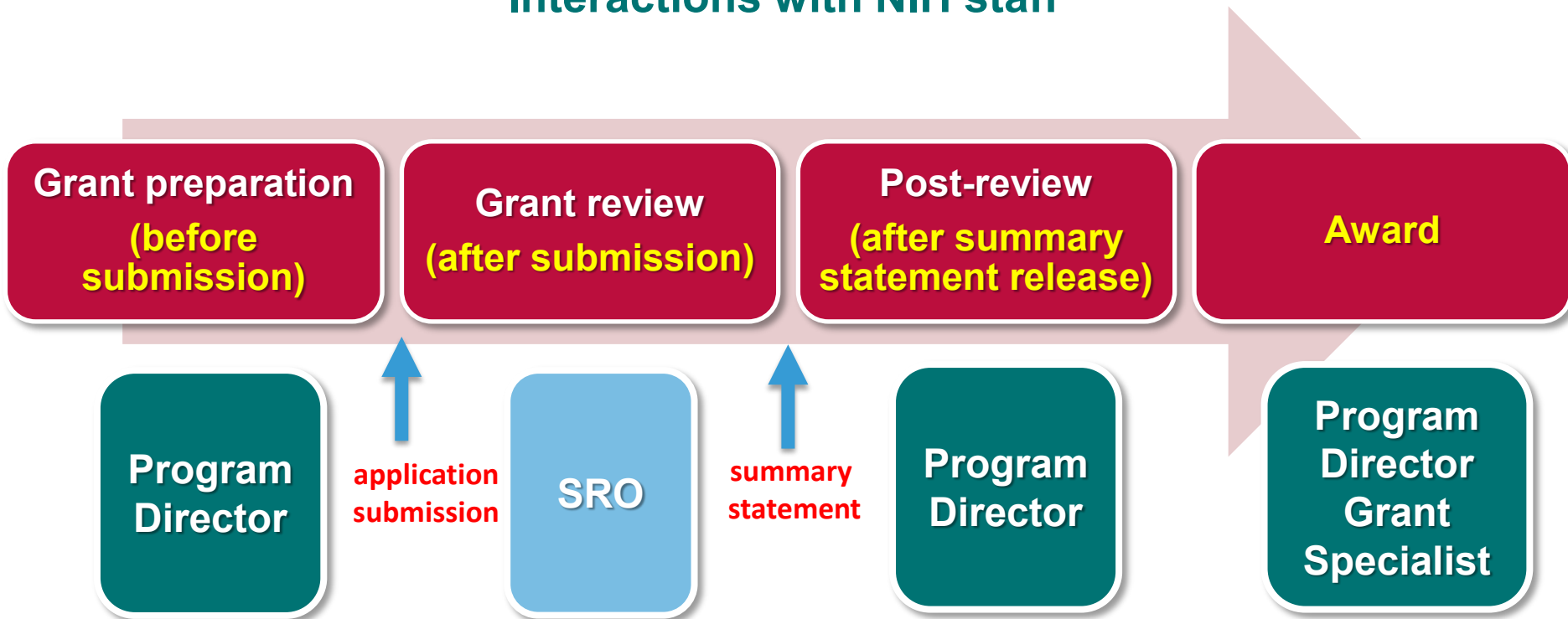
Research Project Grants

Training and Research Career Development Programs

1. Postdoctoral fellowships (F32s): Applications, awards, success rates, and funding, by degree of applicant (~48KB)
2. Research Training Grants (Ts): Competing applications, awards, success rates, and funding, by activity code and Institute/Center (~48KB)
3. Fellowships (Fs): Competing applications, awards, success rates, and funding, by activity code and Institute/Center (~39KB)
4. Career Development Awards (Ks): Competing applications, awards, success rates, and funding, by activity code and Institute/Center (~210KB)

Interactions with NIH staff

Grant preparation (before submission)	Grant review (after submission)	Post-review (after summary statement release)	Award
Program Director	application submission → SRO summary statement →	Program Director	Program Director Grant Specialist

<u>Before application submission</u>: Contacting Program Director

- **Program Director contact information can be found in the FOA under "Scientific/Research Contact(s)"**
  - *Email preferred, include biosketch and Specific Aims in your first email*

- **Helps with clarifying eligibility questions/issues**

- **Confirms whether your project is a good fit for the NIH IC**

- **Provides general advise on how to prepare your application**

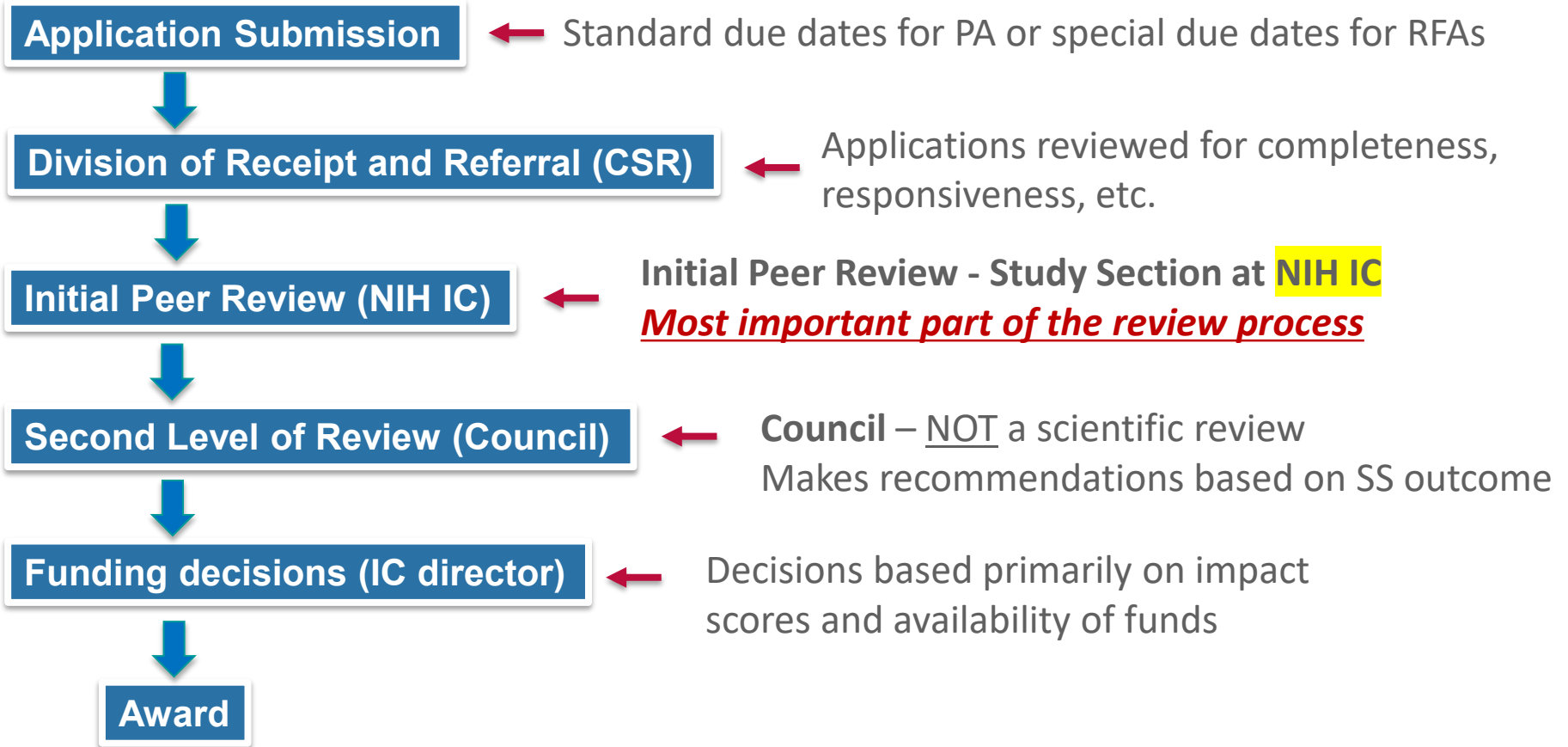- **Discusses important points to consider**

After application submission: Contacting Scientific Review Officer (SRO)

- SRO contact information can be found in eRA Commons

- Handles "post-submission" materials or questions/requests, for example, information on accepted papers

  - Assembles panel of reviewers with appropriate expertise

  - Assigns applications to reviewers

  - Manages initial peer review meeting

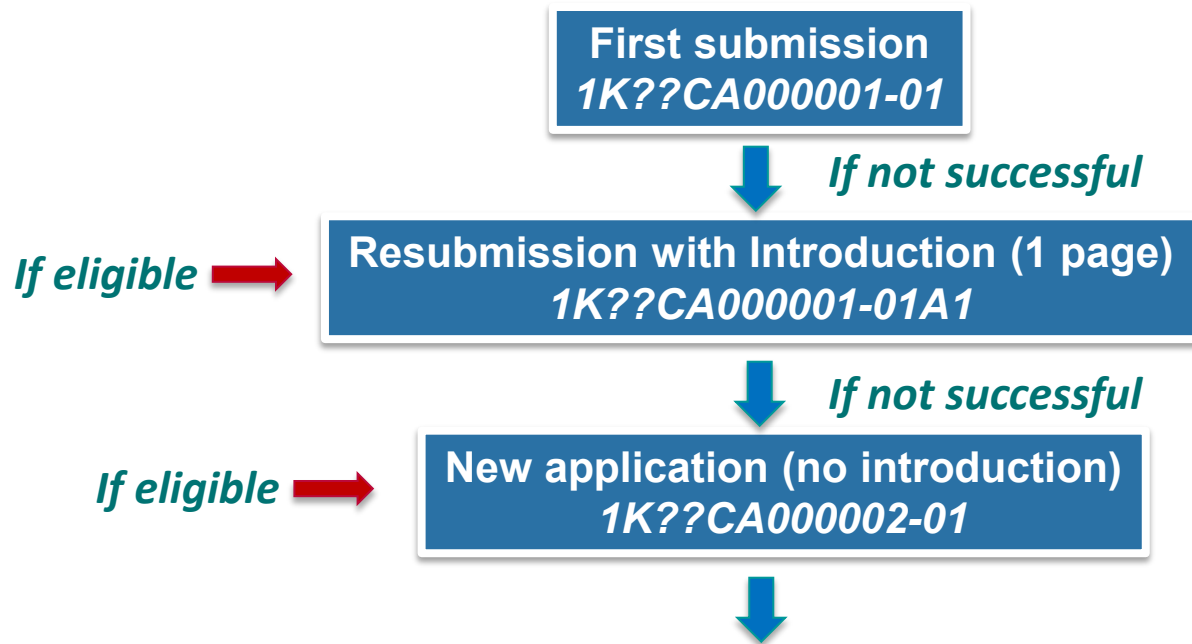 - Prepares and **releases summary statements**

After summary statement release: Contacting Program Director

- Program Director contact information could be found on the front page of your summary statement

- Further discussion of the reviewers' comments

- Discuss your options: wait for funding decision, resubmit application, or submit a new application

- Discuss points/issues to address in your next submission or resubmission

- Discuss acceptable bases for appealing the peer review process

NIH Peer Review Process for K-applications

Application Submission ← Standard due dates for PA or special due dates for RFAs

↓

Division of Receipt and Referral (CSR) ← Applications reviewed for completeness, responsiveness, etc.

↓

Initial Peer Review (NIH IC) ← **Initial Peer Review - Study Section at** ==NIH IC==
Most important part of the review process

↓

Second Level of Review (Council) ← **Council** – <u>NOT</u> a scientific review
Makes recommendations based on SS outcome

↓

Funding decisions (IC director) ← Decisions based primarily on impact scores and availability of funds

↓

Award

NIH Policy on Resubmissions (NOT-OD-14-074)

First submission
1K??CA000001-01

If not successful

If eligible →

Resubmission with Introduction (1 page)
1K??CA000001-01A1

If not successful

If eligible →

New application (no introduction)
1K??CA000002-01

Review Criteria: R01 vs. K-grants

R01

- **Significance**
- **Investigator(s)**
- **Innovation**
- **Approach**
- **Environment**
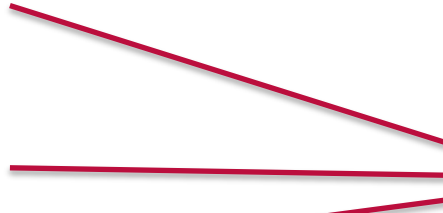
K-grants

- **Candidate**
- **Career Development Plan**
- **Research Plan**
- **Mentors, collaborators**
- **Institutional Commitment**

Study section based on the type of science

Study section at NIH IC reviews all submitted K-grants regardless of the scientific field

K-grants: Page limits

Application Sections	Page Limits
Candidate's Background	12
Career Goals and Objectives	
Candidate's Plan for Career Development/Training Activities	
Research Strategy	
Specific Aims	1
Training in the Responsible Conduct of Research	1
Plans and Statements of Mentor and Co-mentor(s)	6
Letters of Support from Collaborators, Contributors, etc.	6
Description of Institutional Environment	1
Institutional Commitment	1
Biographical sketch	5

Letters of Reference (3 - 5) are required but submitted separately

Review criterion: **Candidate**

(what reviewers are looking for)

- **Potential to become an independent investigator**
  (K99: Will the candidate be competitive for an independent Assistant Professor position in 1-2 years?)

- <u>**Research productivity**</u>, awards

- Strong letters of support

- Prior training

Application section(s)

(where reviewers are looking for it)

- Biosketch (*one of the most scrutinized parts of the application*)

- Candidate's Background

- Letters of Support
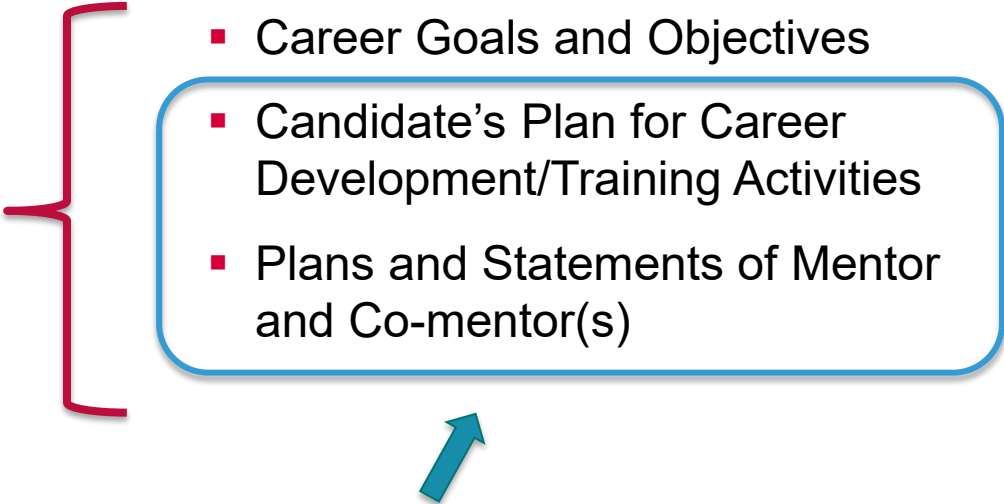
- Letters of Reference

Review criterion: Career Dev. Plan
(what reviewers are looking for)

Application section(s)
(where reviewers are looking for it)

- Justified?

- Relevant to the proposed research/career path?

- Timeline with milestones of activities, transition to independence

- Advisory committee

- Career Goals and Objectives

- Candidate's Plan for Career Development/Training Activities

- Plans and Statements of Mentor and Co-mentor(s)

Make sure they are in sync!

Review criterion: Research Plan

(what reviewers are looking for)

Application section(s)

(where reviewers are looking for it)

- Strong rationale

- Innovative, hypothesis-driven mechanistic research

- Pitfalls and alternative solutions addressed

- Could it form a strong basis for an independent career, e.g., future R01?

- *(K99: Clear outline K99 vs. R00)*

- Specific Aims

- Research Strategy

Review criterion: Mentors, Collaborators

(what reviewers are looking for)

Application section(s)

(where reviewers are looking for it)

- Expertise (all areas covered)

- Mentoring track record

- Funding

- Clear outline of their involvement in the project and career development

- *(K99: statement that the project is portable with the candidate)*

- Plans and Statements of Mentor and Co-mentor(s)

- Letters of Support from Collaborator(s), Consultant(s), etc.

Review criterion: Inst. Commitment
(what reviewers are looking for)

Application section(s)
*(where reviewers are looking for it)*

- Min. 75% effort assurance
  (NCI: 50% for surgeon-scientists)

- Clearly stated support for the candidate and mentor(s)

- Availability of resources for research and training
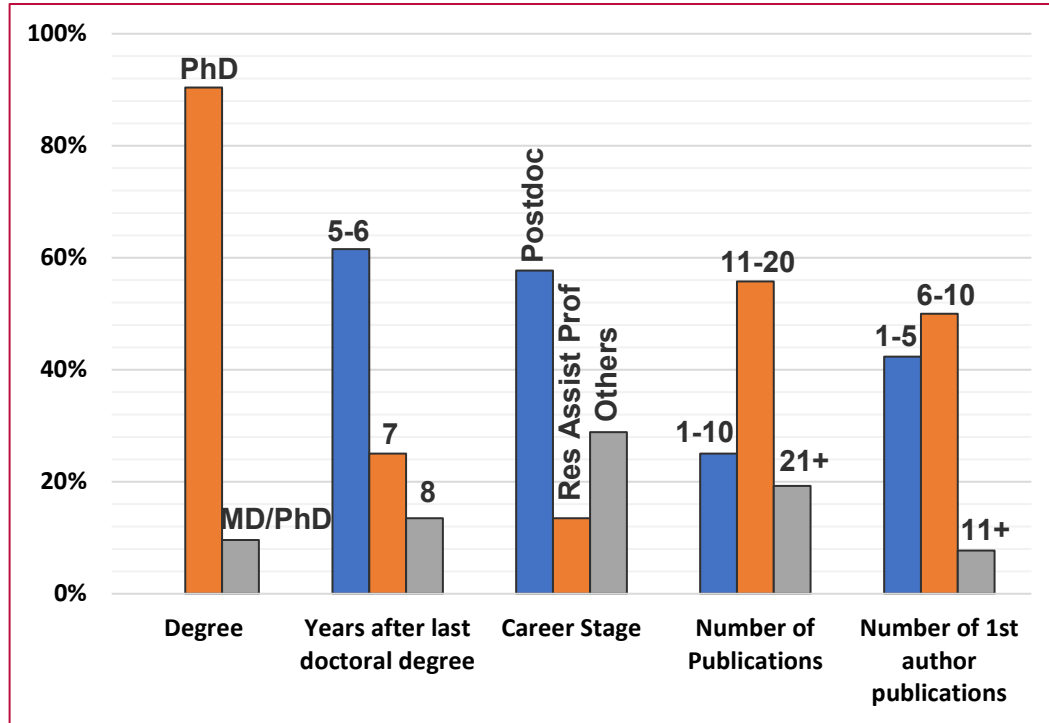
- Description of Institutional Environment

- Institutional Commitment to Candidate's Research Career Development
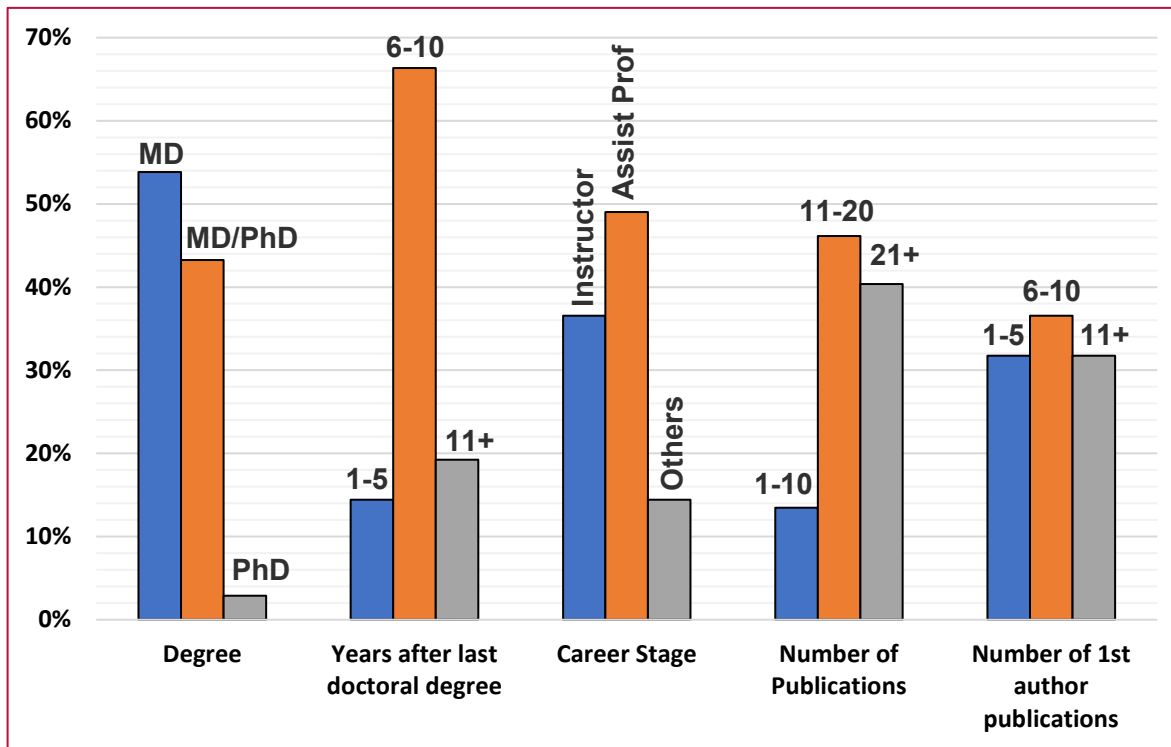
- Facilities and Other Resources

NCI K99 awardee profile
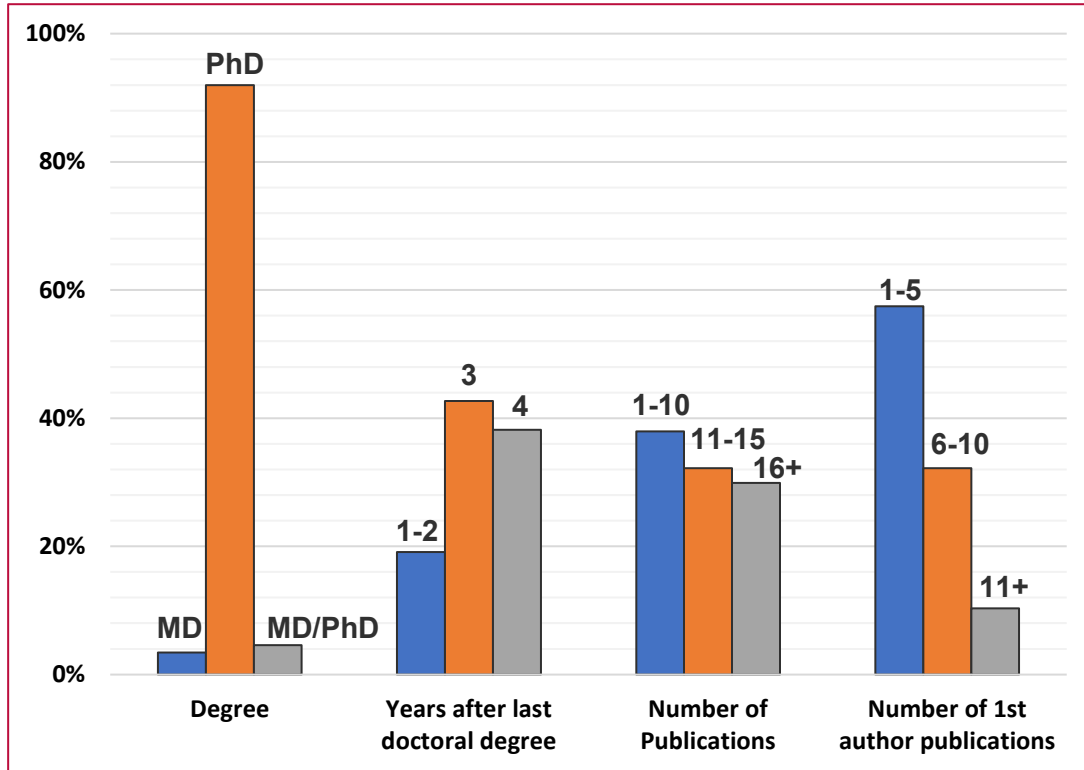
NCI K22 awardee profile
(*diversity K22 awards not included*)

NCI K08 awardee profile
(*diversity K08 awards not included*)

Characteristics of a strong K application

- **Candidate:** <u>publications</u>, **relevant 1st author publications,** awards, strong letters of support, strong letters of reference

- **Career Development Activities:** relevant to the proposed research and future career (coursework, seminars, workshops, conferences**), <u>well-justified need for mentored training,</u>** be specific/provide details

- **Research Plan:** innovative, important, hypothesis-driven, convincing preliminary data - strong rationale, high likelihood to significantly advance the field, strong basis for future R01s, describe experimental details, pitfalls and alternatives addressed

- **Mentor(s):** established investigators with strong mentoring and funding track records, encompass **<u>all the areas of expertise</u>** needed for you to achieve your research and career development goals

- **Institutional Commitment:** institutional support for the candidate and mentors clearly stated; assurance of min. 75% effort *(NCI: 50% for surgeon-scientists)*

Common perceived weaknesses

- Exploratory or descriptive research

- Non-hypothesis-driven research; lack of a convincing rationale

- Interdependent specific aims

- Proposed research is not significant/ exciting/ innovative (incremental advances)

- Pitfalls and alternatives not addressed

- Overly ambitious research

- Under-ambitious research

- Lack of appropriate experimental details

Tips for preparing a K-application

- **Biosketch** (one of the most scrutinized parts of the application): use correct template (**non-fellowship**), highlight your achievements, include a URL to a full list of your published work, include clinical license information (*for NCI K08*), utilize "Personal Statement" section

- **Letters of Support:** make sure every collaborator/contributor provides a letter of support, where he/she explains his/her role in the application

- **Letters of Reference (3-5):** <u>required</u> part of the application – **NOT** letters of support

- **Research Plan/Specific Aims:** clearly explain why your project is important (<mark>**<u>K-study section is likely VERY diverse!</u>**</mark>), how it will advance the field, benefits patients; clearly explain the rationale, make sure it is easy to read/logical; provide preliminary data supporting the hypothesis, highlight specific aims and hypothesis, address pitfalls and alternatives

- **Utilize Assignment Request Form:** indicate your choice of NIH IC (<u>no need to specify study section for K-grants</u>), list **<u>areas of expertise</u>** required to review your application, do not name/suggest reviewers, may ask to exclude reviewers in conflict

General recommendations/Best practices

- Read the FOA

- Read K-Career Development Instructions (SF424 (R&R) - Version G)

- Submit early (>2 days before the deadline). Check for errors - correct if needed

- Contact eRA Commons Help Desk if having submission problems (e.g., Reference letters)

- Track your application in your eRA Commons account

- If you have any questions - contact appropriate program official early in the process

  ○ Email is the best way of communication

  ○ Attach your biosketch and a draft of your specific aims

Thank You!

cancer.gov/training

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

Important points to keep in mind

- You may not have two or more competing NIH **career development applications** pending review **concurrently**

- If you submitting a new application after pervious unsuccessful submissions, your application will be treated as a new application by NIH

- *NCI:* It is expected that the Research Plan be based on the candidate's original ideas and/or hypotheses. The K project can be within the overall scope of the mentor's research awards. However, there should be no text duplication or duplication of the scientific aims, and the candidate's application should propose a scientific research question that is distinct from the mentor's pending or active research grants.
  NCI will not support both a K award and an active or pending research grant that propose substantially the same research