

NIH Career Development (K) Awards



AMANDA BOYCE

PROGRAM OFFICER

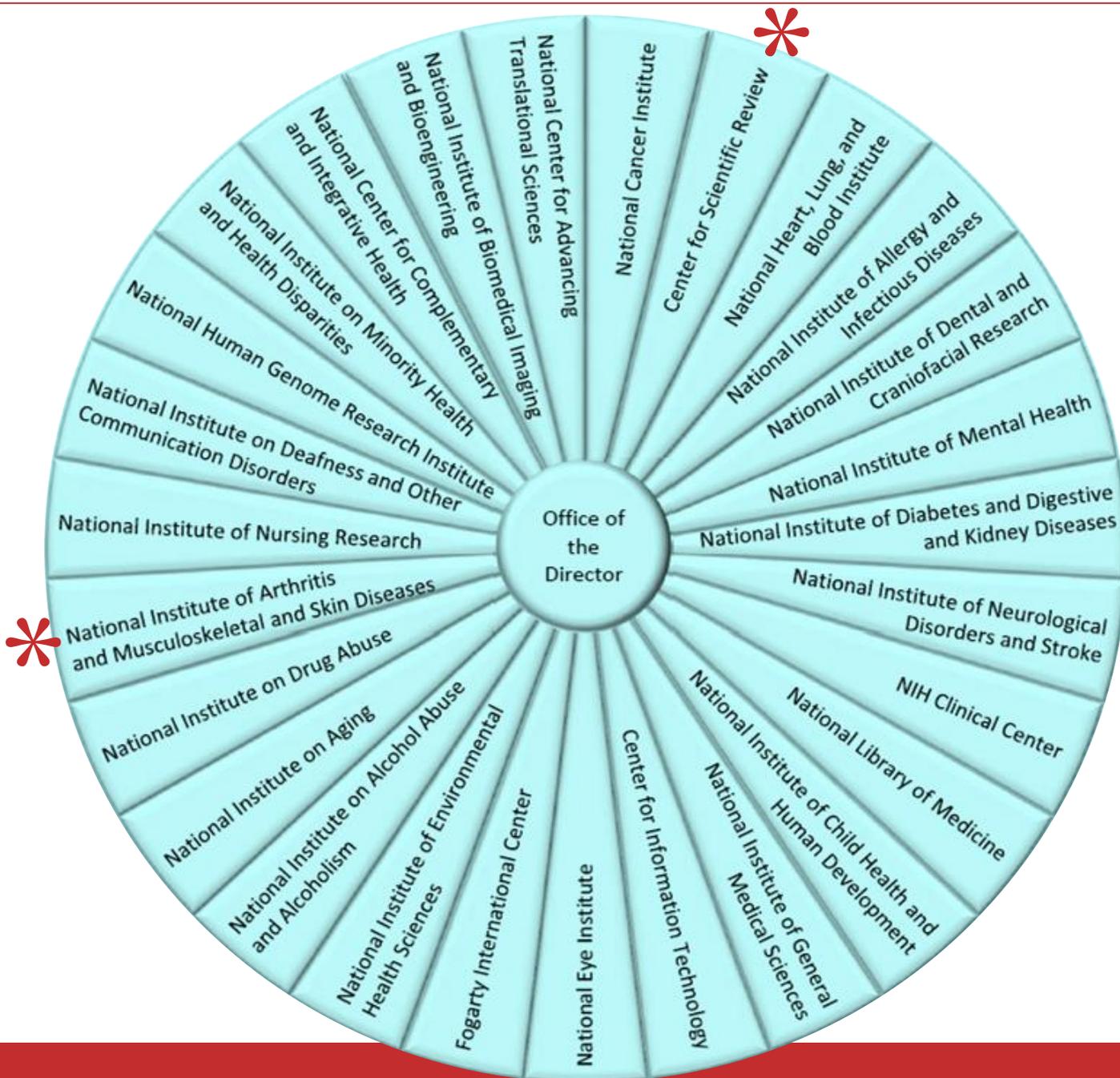
**NATIONAL INSTITUTE OF ARTHRITIS
AND MUSCULOSKELETAL AND SKIN
DISEASES**

MARCH 8, 2017

Background Basics



**NIH STRUCTURE, WHERE
TO FIND INFORMATION,
WHO TO CALL...**



“Parent” Funding Opportunity Announcements



Career Development (K) Announcements

Activity Code(s)	Title	Announcement Number	Issuing Organization	Release Date	Opening Date (SF424 Only) ?	Expiration Date
K01	Mentored Research Scientist Development Award (Parent K01)	PA-16-190	NIH	04/15/2016	05/12/2016	05/08/2019
K02	Independent Scientist Award (Parent K02)	PA-16-192	NIH	04/15/2016	05/12/2016	05/08/2019
K08	Mentored Clinical Scientist Research Career Development Award (Parent K08)	PA-16-191	NIH	04/15/2016	05/12/2016	05/08/2019
K23	Mentored Patient-Oriented Research Career Development Award (Parent K23)	PA-16-198	NIH	04/15/2016	05/12/2016	05/08/2019
K24	Midcareer Investigator Award in Patient-Oriented Research (Parent K24)	PA-16-206	NIH	04/19/2016	05/12/2016	05/08/2019
K25	Mentored Quantitative Research Development Award (Parent K25)	PA-16-194	NIH	04/19/2016	05/12/2016	05/08/2019
K99/R00	NIH Pathway to Independence Award (Parent K99/R00)	PA-16-193	NIH	04/15/2016	05/12/2016	05/08/2019

Other Funding Opportunity Announcements



National Institutes of Health
Office of Extramural Research

Grants & Funding

NIH's Central Resource for Grants and Funding Information

Entire Site



Search this Site



[eRA](#) | [Glossary & Acronyms](#) | [FAQs](#) | [Help](#)

HOME

ABOUT GRANTS

FUNDING

POLICY & COMPLIANCE

NEWS & EVENTS

ABOUT OER

NIH Guide to Grants and Contracts

The NIH Guide for Grants and Contracts is our official publication for NIH grant policies, guidelines and funding opportunities. We publish daily, and issue a [table of contents](#) weekly. Learn more [about the NIH Guide](#) and [subscribe today!](#)

The [old advanced search](#) is still available.

New Features:

- **Tabular view** - You can now view the search results in table format.
- **Export to excel** - Search results can now be exported to excel for reporting purposes.

Current Search



Search Summary or Number



Search Title



- Any of these words
- All of these words
- This exact word or phrase

Export to

Save this Search

Refine Your Results



Type Of Funding Opportunities



- Program Announcements (PAs)
- Parent Announcements Only
- Requests for Applications (RFAs)

Results: 1 to 25 of 1089

Page: 1 of 44

Next

Last

Display Results as:

Table

Detailed

Active FOAs

Expired FOAs

Notices

Title	FOA Number	Organization	Released	Expires	Activity Code
The Health and Retirement Study (U01)	RFA-AG-18-005	NIA	02-28-2017	05-17-2017	U01
NIDCD Research Grants for Translating Basic Research into Clinical Tools (R01)	PAR-17-184	NIDCD	02-28-2017	06-19-2020	R01
Innovations in HIV Testing, Adherence, and Retention to Optimize HIV Care Continuum Outcomes (R21)	PA-17-181	NIMH	02-28-2017	01-08-2020	R21
Innovations in HIV Testing, Adherence, and Retention to Optimize HIV Care Continuum Outcomes (R01)	PA-17-182	NIMH	02-28-2017	01-08-2020	R01
NICHD Research Education Programs (R25)	PAR-17-183	NICHD	02-28-2017	05-26-2019	R25
Evaluating Natural Experiments in Healthcare to Improve Diabetes Prevention and Treatment (R18)	PAR-17-178	NIDDK	02-28-2017	11-02-2019	R18
Pragmatic Research in Healthcare Settings to	PAR-17-177	NIDDK	02-28-2017	11-02-2019	R18

<https://grants.nih.gov/funding/searchguide>

Which IC Participates, Who to Contact



Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)

National Institutes of Health (NIH)

Components of Participating Organizations

National Cancer Institute (NCI)
National Eye Institute (NEI)
National Heart, Lung, and Blood Institute (NHLBI)
National Human Genome Research Institute (NHGRI)
National Institute on Aging (NIA)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)
National Institute of Allergy and Infectious Diseases (NIAID)
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
National Institute of Biomedical Imaging and Bioengineering (NIBIB)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
National Institute on Deafness and Other Communication Disorders (NIDCD)
National Institute of Dental and Craniofacial Research (NIDCR)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
National Institute on Drug Abuse (NIDA)
National Institute of Environmental Health Sciences (NIEHS)
National Institute of General Medical Sciences (NIGMS)
National Institute of Mental Health (NIMH)
National Institute of Neurological Disorders and Stroke (NINDS)
National Center for Complementary and Integrative Health (NCCIH)

Special Note: Not all NIH Institutes and Centers participate in Parent Announcements. Applicants should carefully note

the areas of research interest and requirements at the [NIH website](#). ICs that do not participate in this announcement will not consider applications for funding. For consideration with NIH staff is strongly encouraged.

[Table of IC-Specific Information, Requirements and Staff Contacts](#)

Funding Opportunity Title

Mentored Clinical Scientist Research Career Development Award
(Parent K08)

Who to Contact, IC-Specific Information



National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Scientific Program Contact:
Amanda Taylor Boyce, Ph.D.
Phone: 301-594-5055
Email: boycea@mail.nih.gov

Grants Management Contact:
Yen Thach
Phone: (301) 594-3505
Email: thachy@mail.nih.gov

NIAMS Specific Information:

Information about NIAMS funding mechanisms is available at http://www.niams.nih.gov/Funding/Funding_Opportunities/activity_codes.asp.

Salary Support: Up to \$100,000 plus fringe benefits per year for a minimum of 75% effort (with the exception of orthopaedic surgeons, who may devote a minimum of 50% effort).

Research Support: Up to \$30,000 per year.

Your Program Officer...



- **Provides technical assistance to applicants**
- **Evaluates the mission relevance and programmatic merit of applications**

- **Observes scientific review meetings**
- **Discusses review issues with applicant**
- **Prepares funding recommendations**



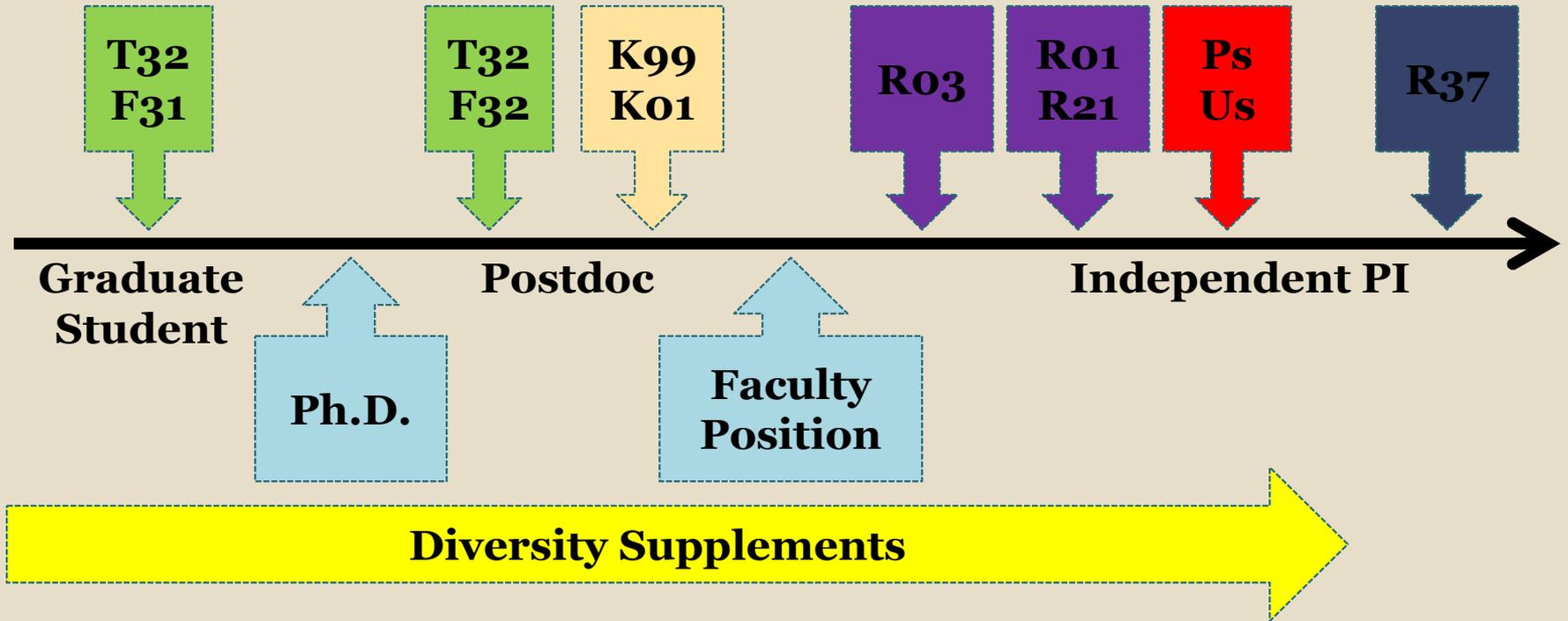
- **Reviews annual research progress of grantees**
- **Reports on scientific progress and program accomplishments**

K Awards

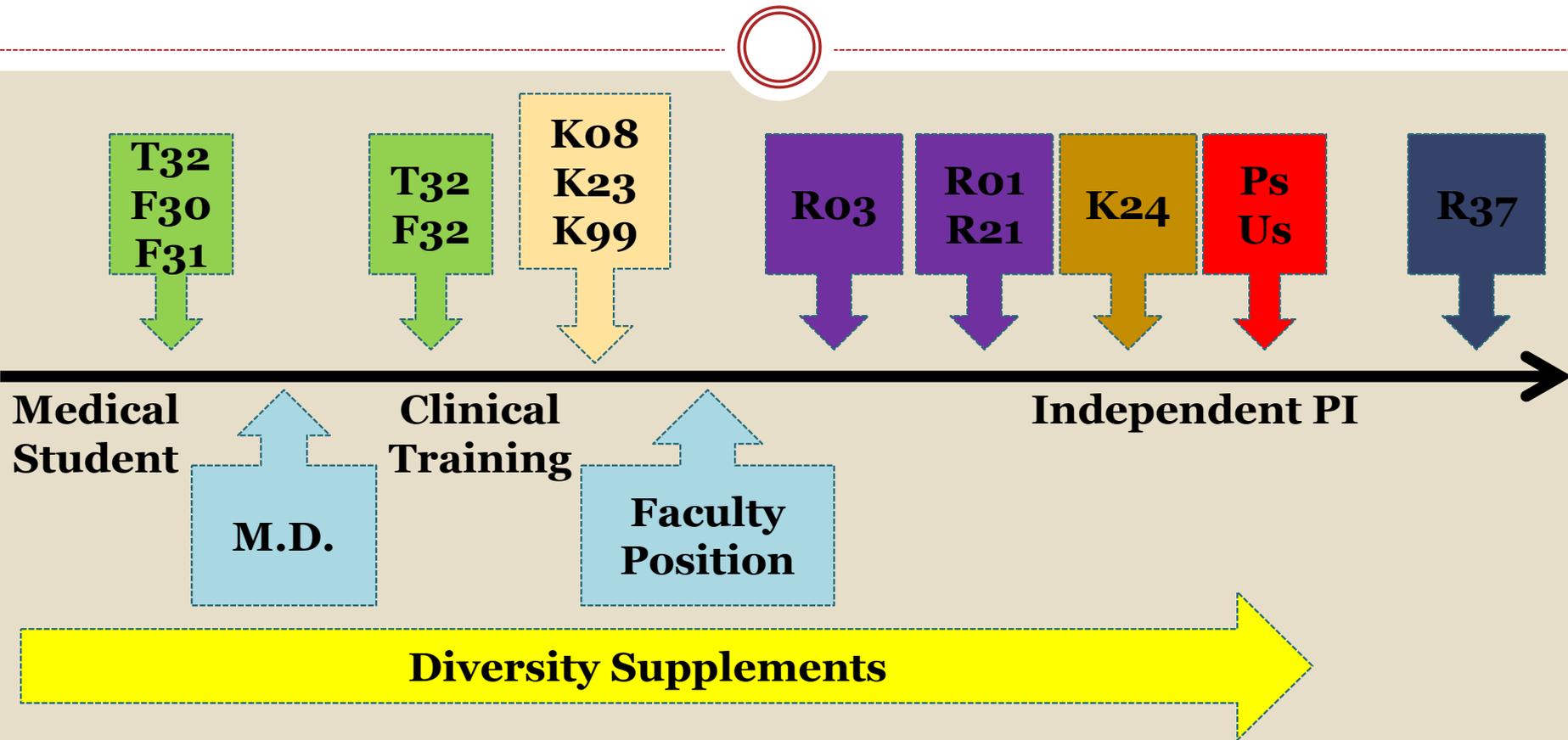


**INDIVIDUAL: K01, K08, K23, K99...
(INSTITUTIONAL: K12, KL2...)
ADDITIONAL OPPORTUNITIES**

Career Path for a Research Ph.D.



Career Path for a Clinician



K01 Mentored Research Scientist Development Award

- ❖ **Supports career development experiences leading to research independence. IC may limit to:**
 - ❖ Re-entry
 - ❖ Specific field
 - ❖ Career stage
 - ❖ Diversity
 - ❖ Clear change of field
- ❖ **Opportunities for M.D.s and Ph.D.s.**
- ❖ **Requires 75% research effort.**

Benefits

- **Term: 3 to 5 years**
- **Salary and fringe benefits (determined by your institution): varies by IC**
- **Research Support: up to \$50,000/year (varies by IC)**

Ko8 Mentored Clinical Scientist Development Award

K23 Mentored Patient-Oriented Research Career Development Award

- ❖ **Ko8 supports relevant coursework and mentored research for individuals doing basic research projects.**
- ❖ **K23 focuses on clinical/patient-oriented projects.**
- ❖ **Majority of awardees are M.D.s and M.D.-Ph.D.s.**
- ❖ **Requires 75% research effort.**

Benefits

- **Term: 3 to 5 years**
- **Salary and fringe benefits (determined by your institution): varies by IC**
- **Research Support: Up to \$51,000/yr (varies by IC)**

K99/Roo Pathway to Independence Award

- ❖ **Transition award for postdocs moving to assistant professor positions (tenure track or equivalent).**
- ❖ **Must have less than 4 years of postdoc experience at time of application.**
- ❖ **Supported by almost all ICs with variations.**
- ❖ **This is the only K with no citizenship/green card requirement.**
- ❖ **Requires 75% research effort.**

Benefits

➤ **K99 Phase**

- **Mentored Phase: up to 2 years**
- **Research Support: varies by IC**

➤ **Roo Phase**

- **Independent Phase: up to 3 years**
- **Research Support: \$249,000/yr total costs**

Clinical Scientist Institutional Career Development Program Award (K12, KL2)



- ❖ Multi-slot awards that are used to support research training activities of individual researchers
- ❖ Available to postdoctoral researchers
- ❖ Support multiple researchers
- ❖ Requires significant effort.
- ❖ You apply directly to the K12/KL2, not to the NIH.

Benefits

- Term: 1 to 5 years (usually 1-2 years)

There are 50 CTSA programs in 31 states, each with its own KL2 program.

There are 184 K12s at 73 institutions across the US.

range
determined
(institution):
support:

R03s for K Awardees



- **PAR-16-268: Limited Competition: Small Grant Program for NIAMS K08 and K23 Recipients (R03)**
- **RFA-HL-16-020: Limited Competition: Small Grant Program for NHLBI K01/K08/K23 Recipients (R03)**
- **PAR-16-148: Limited Competition: Small Grant Program for NIDDK K01/K08/K23 Recipients (R03)**

Loan Repayment Program



- **Commit to perform research for 2 years, and the NIH repays up to \$35,000 per year of your qualified educational debt and covers the resulting taxes.**
- **You must be conducting research in of the following 5 areas:**
 - **Clinical Research**
 - **Pediatric Research**
 - **Contraception & Infertility Research**
 - **Health Disparities Research**
 - **Clinical Research for Individuals from Disadvantaged Backgrounds**

Ready to Write?



**INSTRUCTIONS,
SCORING, COMPONENTS**

Where are the Instructions?



- **Funding Opportunity Announcements (FOAs)**
- **Career Development Instructions For NIH And Other PHS Agencies - SF424 (R&R)**
 - **Remember that the FOA instructions always supersede these application instructions.**

▶ **Application Form Instructions [SF424 (R&R) -Version D]**

*** See funding opportunity announcement for forms ***

[Need help selecting the right application instructions?](#)

Application Instructions	Description	View/Download
General (G) Instructions	Comprehensive guidance for research, training, fellowship, career development, multi-project, and small business applications	HTML PDF
Filtered views for your convenience:		
Research (R) Instructions	Guidance for research only	PDF
Career Development (K) Instructions	Guidance for career development only	PDF

FOA vs. SF424



Career Goals and Objectives – FOA

- **Describe a systematic plan: (1) that shows a logical progression from prior research and training experiences to the research and career development experiences that will occur during the career award period and then to independent investigator status; and (2) that justifies the need for further career development to become an independent investigator.**

Career Goals and Objectives – SF424

- **Describe your short-term and long-term career goals.**
- **Justify the need for the award by describing how the career development award will enable you to develop and/or expand your research career.**
- **You are encouraged to include a timeline, including plans to apply for subsequent grant support.**

How is the Score Determined?



- **Overall Impact**
 - **Scored Review Criteria**
 - ✦ **Candidate**
 - ✦ **Career Development Plan/Career Goals and Objectives**
 - ✦ **Research Plan**
 - ✦ **Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)**
 - ✦ **Environment & Institutional Commitment to the Candidate**
 - **Additional Review Criteria (affect score)**
 - ✦ **Protections for Human Subjects; Inclusion of Women, Minorities, and Children**
 - ✦ **Vertebrate Animals**
 - ✦ **Biohazards**
 - ✦ **Resubmissions**
- **Additional Review Considerations (do not affect score)**
 - **Training in the Responsible Conduct of Research**
 - **Select Agent Research**
 - **Resource Sharing Plans**
 - **Authentication of Key Biological and/or Chemical Resources**
 - **Budget and Period of Support**

Critical Parts of the Application



- **Candidate Information and Goals for Career Development**
- **Specific Aims**
- **Research Strategy**
- **Plans and Statements of Mentor and Co-Mentor(s)**
- **Description of Institutional Environment**
- **Institutional Commitment to Candidate's Research Career Development**
- **Reference Letters**

Writing



GENERAL GUIDANCE, SPECIFIC TIPS

General Guidance



- **Have a draft of the full proposal critiqued at a formal meeting of your colleagues:**
 - This should be done at least a month prior to the submission deadline.
 - Encourage your colleagues to be frank and highly critical.
 - This can be humbling, but the application will benefit greatly.
- **Make Life Easy for Reviewers:**
 - Follow the instructions.
 - Write clearly and concisely.
 - Guide the reviewers with graphics as much as possible.
 - Label all materials clearly.
 - Edit and proof.
- **A K award is much more than a research award. You have to tell your story: what you've done, what you plan to do, how this award will make that possible.**

Candidate Information



- **Tell the reviewers about your scientific history, and explain how the K award will lead to research independence.**
- **If you have changed research direction, discuss reasons for the change, and be sure to justify how it will help you to develop your research career.**
- **Mentors need to make sure that their enthusiasm for the candidate is clear.**
- **Specific examples of exceptional achievements by the candidate (including awards, presentations at meetings, etc.) should be provided.**

Goals for Career Development



- **Make sure to fully explain any new or enhanced research skills you will gain as a result of the K.**
- **Describe any additional, non-research activities in which you expect to participate and explain how each activity will enhance your career.**
- **Your research and career development objectives must match. For instance, don't propose taking classes unrelated to your goals.**
- **You should always provide a career development timeline, including plans to apply for subsequent grant support.**
- **Personalize this! It can't be generic.**

Specific Aims



- **Grab the reader immediately!**
- **Identify a gap, state long-term objectives, explicitly state a single overall hypothesis .**
- **List research questions (“specific aims”)**
 - **Each aim should be stated separately followed by a brief discussion of expected outcomes and their impact on the research field.**
 - **Provide a clear statement of each aim’s objectives, e.g., to test a stated hypothesis; to create a novel design; to solve a specific problem; to challenge an existing paradigm; to address a critical barrier to progress in the field; or to develop a new technology.**
- **You’ll also need your Specific Aims page when you talk to a Program Officer.**

Research Strategy



- **The plan must be feasible. The hypotheses should be based on sound preliminary data and the experiments possible.**
- **It should be a sound training vehicle. A high risk, innovative project may not be suitable.**
- **Make sure your idea is not too broad. Your hypothesis must be provable during your 3 to 5 year award with the level of resources you are requesting. Avoid an “over-ambitious” project or one that looks like an R01 grant!**
- **Don't forget to include**
 - **Expected Outcomes**
 - **Potential Pitfall and Alternative Approaches**
 - **Timeline**
 - **Future Directions**

Mentors and Mentoring



- **A history of grant support, publications, and mentoring is key.**
- **If the mentor is lacking in any area, a co-mentor may be needed to fill in the gaps.**
- **Mentors should provide details about the mentoring component, including how often they will meet with the candidate.**
- **Formal mentoring committees to monitor the progress of the applicant are often helpful.**
- **Make sure everyone associated with the application has a clear role.**
- **It is critical to discuss plans for transitioning the candidate to the independent investigator stage by the end of the K award period.**

Institutional Commitment



- **The institution must document its commitment to the candidate's career development and advancement *independent* of the K award.**
- **The institution must agree to provide adequate time and support to the candidate for the period of K.**
- **The strongest support is for the Department to guarantee a faculty position and independent research space for the candidate, but this is not common.**
- **At the least, the Department should make it clear that an offer of a faculty position is anticipated for the applicant upon successful completion of the fellowship.**
- **Review groups understand that institutions are often hesitant to make promises to fellows at an early stage of their research careers. However, the applicant and mentor should strive to obtain the strongest commitment statement possible.**
- **Please note, you do not need commitment for the R00 portion of the K99-R00.**

Letters of Reference



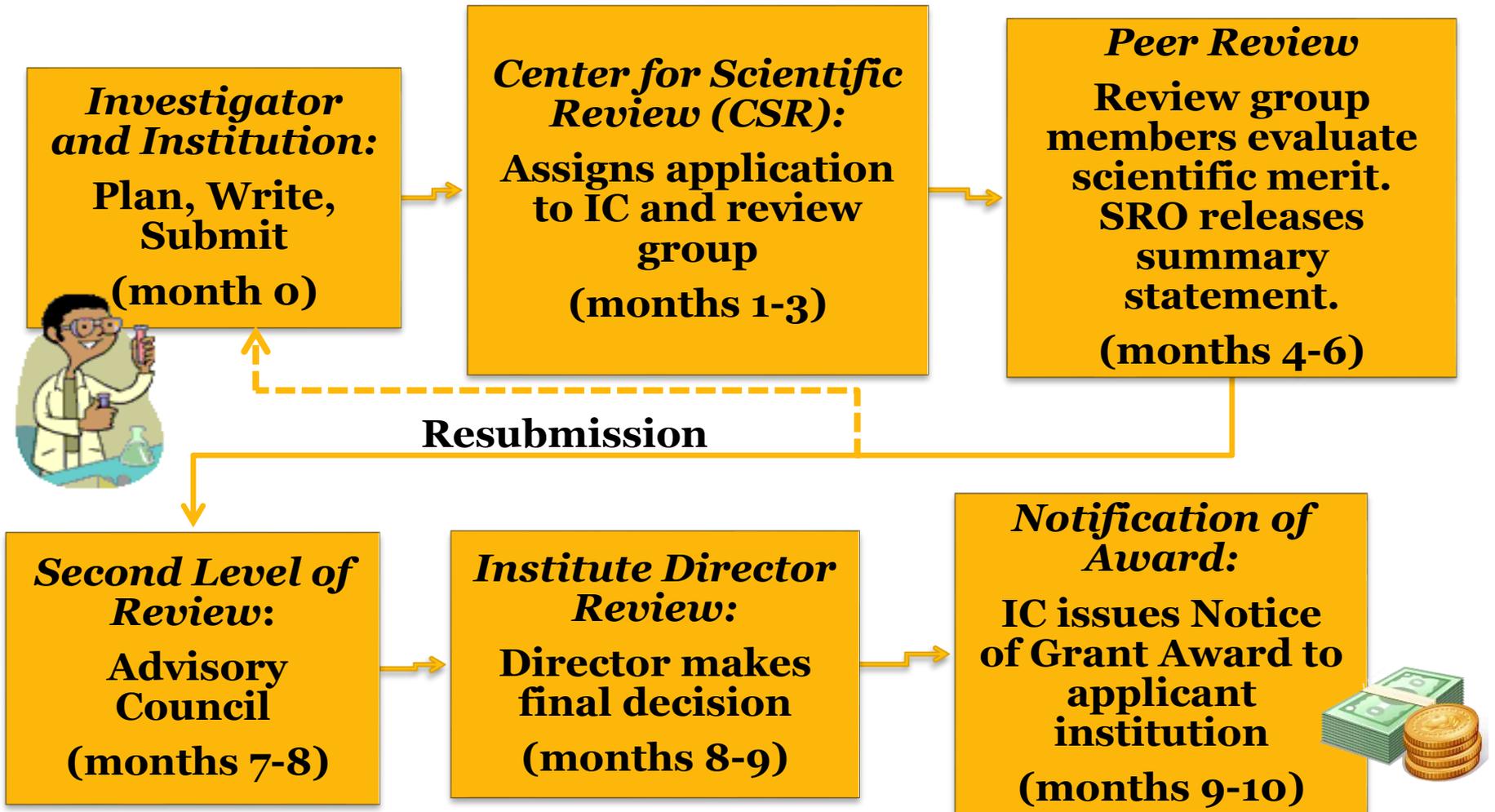
- **Letters from scientists at the applicant institution are OK, but outside letters from established scientists carry more weight.**
- **Also useful are letters that attest to the character/work ethic of the applicant. For physician scientists applying for fellowships (e.g., KO8 awards), this may include comments on the clinical acumen of the applicant.**

Process



APPLICATION LIFECYCLE

Life Cycle of an NIH Grant Application



Resubmissions



- **Respond in detail to all comments by each reviewer.**
- **Specify the changes made in the proposal in response to the reviewers' comments.**
- **If a reviewer's comment is off the mark, assume that it was because the grant was not clear and indicate how you are making it clearer in the revised version.**
- **In the rebuttal, assume a tone that takes into account the considerable effort exerted by the reviewers and the fact that they are trying to help improve the grant.**

Thank you!



AMANDA BOYCE
BOYCEA@MAIL.NIH.GOV