



Pre & Postdoctoral Career Development: NIH Fellowships and Grants

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Workshop objective:

To provide guidance on applications
for NIH pre- and postdoctoral career awards:

- Fellowships (“F”) awards
- Career transition awards (“K”)
- K99/R00 “Pathway to Independence”

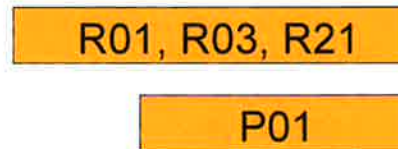
NIH Grant/Career Timeline



Training:



Research:



Selecting Your Career Development Track

National Institutes of Health
Research Training and Career Development

Division of Biomedical Research Workforce

SEARCH

Contact Us

About DBRW Career Path Programs Institute/Program Matrix Resources

Undergraduate Graduate/Doctorate Postdoctoral/Residency Early Career Established Investigator

Career Path

NIH programs help to prepare the skilled, creative and diverse biomedical research workforce of tomorrow

Undergraduate and Postbaccalaureate Education Predoctoral Training/ Clinical Doctorate Postdoctoral Training/ Clinical Residency Early Research Career Development Investigator Development and Mentoring

<https://researchtraining.nih.gov/career-path>



NIH Fellowship (F) Awards

Provide support for pre- and postdoctoral studies in disciplines supported by NIH:

- Tuition: percentage varies by program
- Stipend: varies by years of experience
- Health insurance: individual and family
- Institutional allowance: research-related expenses
- Eligibility: US citizens or Permanent Residents

Note: Not all Institutes support F tracks; check Program announcements!



NIH Fellowship (F) Awards

F Award Tracks:

- F30: **predoctoral** award for combined M.D./Ph.D. training
- F31: **predoctoral** award in health-related research (Ph.D., M.D./Ph.D., BSN/Ph.D, and other combinations)
- F31: **predoctoral award to promote diversity**
- F32: promising **postdoctoral** applicants with high potential to become independent investigators

Application success rates:
F31: 30% - 35%
F32: 25%

Excellent collection of successful NIH proposals...

The screenshot shows the NIH website interface. At the top, there is a search bar and navigation tabs for 'RESEARCH', 'DISEASES & CONDITIONS', 'GRANTS & CONTRACTS', 'CLINICAL TRIALS', 'NEWS & EVENTS', and 'ABOUT NIAID'. The 'GRANTS & CONTRACTS' tab is selected, leading to the 'Apply for a Grant' page. The page features a progress bar with four steps: 'Find a Funding Opportunity', 'Apply for a Grant', 'After Submitting an Application', and 'Manage Your Award'. The main content area is titled 'Sample Applications & More' and includes a 'Table of Contents' with a list of links. The link 'F31 - University Sample Applications and Summary Statements' is circled in red. On the right side, there is a 'Have Questions?' section with a paragraph of text and a link to 'When to Contact a NIAID Program Officer'.

www.niaid.nih.gov/grants-contracts/sample-applications

NIH Career Development Awards



K Awards:

- Support for career transition (~ 2% NIH budget)
- Wide range of types: currently 14 (K01-K99)
- For clinicians & basic scientists
- For junior & senior faculty
- Foster basic, clinical & patient-oriented research
- Provide partial funding for salaries
- Application success rates: 31%, but vary widely

K Awards

1. For mentored career development:

- Basic scientists: K01
- Clinicians: K08, K23, K24

2. For career transition:

- Basic scientists: K02, K22
- Pathway to Independence: K99/R00



K Awards

Mentored career development:

- Development of junior faculty
- Dedicated mentor is essential for
 - Successful application
 - Successful outcome
- Basic scientists & clinicians



K Awards for basic scientists

K01: Mentored Research Scientist Award

“Career development in a new area of research...”



- Potential for productive independent research
- Mentor with extensive research experience
- 75% effort over 3-5 years
- Differences among Institutes

K Awards for basic scientists

K02: Independent Scientist Award

“Develop career of funded scientists...”



- Salary support for newly independent scientists
- Must have peer-reviewed research support
- 75% effort for 5 years

K99/R00 (Kangaroo) Award

- **NIH Pathway to Independence (PI) Program**
- **Goal:** *To accelerate transition from a postdoctoral status to an independent scientist capable of receiving an R01 award*
- **Both clinicians and basic scientists are eligible**
- **Provides up to five years of support consisting of two phases:**
 1. Initial 1-2 years of mentored support for highly promising postdoctoral research scientists (**K99 Phase**)
 2. Followed by up to 3 years of independent support contingent on securing an independent research position (**R00 Phase**)



Mentored (K99) Phase

- Provides 1-2 years mentored support for highly promising postdoctoral research scientists with terminal clinical or research doctorates
- Total cost per year up to \$90,000
- Only US institutions may apply on behalf of candidates

U.S. citizens and non-U.S. citizens eligible

Independent Investigator (R00) Phase

- Transition from K99 to R00 (years 3-5) is to be continuous in time
- Start of R00 Phase requires a tenure-track, full time assistant professor position (or equivalent)
- Transition is subject to NIH review and evaluation of research plan
- Total support up to \$250,000 per year
- Institution must demonstrate commitment to candidate (minimum 75% effort, space, equipment, etc.)
- PI expected to apply for independent grant support



NIH Career Transition Awards



Warning: Electronic Submission required!

Category	Application Type	Form	Start Date	End Date	Final Date
Research Career Development	new	SF 424 (R&R)	February 12	June 12	October 12
Other Research Grants	new	SF 424 (R&R)	February 12	June 12	October 12
Academic Research Enhancement Award (AREA)	new, renewal, resubmission, revision	SF 424 (R&R)	February 25	June 25	October 12
Research Grants	renewal, resubmission, revision	SF 424 (R&R)	March 5	July 5	November 5
Research Grants - Cooperative Agreements	renewal, resubmission, revision	PHS 309	March 5	July 5	November 5
Research Career Development	renewal, resubmission, revision	SF 424 (R&R)	March 12	July 12	November 12
Other Research Grants	renewal, resubmission, revision	SF 424 (R&R)	March 16	July 16	November 16
Small Business Technology Transfer (STTR)	new, renewal, resubmission, revision	SF 424 (R&R)	April 5	August 5	December 5
Small Business Innovation Research (SBIR)	new, renewal, resubmission, revision	SF 424 (R&R)	April 5	August 5	December 5
Individual National Research Service Awards (Standard)	new, renewal, resubmission	SF 424 (R&R)	April 8	August 8	December 8

<http://grants.nih.gov/grants/funding/submissionschedule.htm>

Grants.Gov FAQ Page

http://era.nih.gov/ElectronicReceipt/faq_prepare_app.htm

NIH Office of Extramural Research
Electronic Submission of Grant Applications

Electronic Submission > Resources > Frequently Asked Questions (FAQs) > Prepare Application

Frequently Asked Questions

Prepare Application

- Application Guide
- Resubmission, Revision, Renewal
- SF 424 (R&R)
 - Application Form
 - Organizational District
 - Budget
 - Person Months
 - Administrative Submittals
 - Application File Size
 - Attachments/Appendix
 - PDFs
 - Multiple PI
 - Page limitations
 - Cover page
- Application checks (validations)

<< Back to FAQs

Prepare Application

Application Guide

- Where is the SF424 (R&R) Application Guide available?
The application guide can be found on OER's [SF 424 \(R&R\) Application and Expenses Submission Information](#) page.
- Where will an applicant need to look to find application instructions?
[Application and Expenses Submission Information](#)

Project Description (Abstract)

- **PURPOSE:** Describe succinctly every major aspect of proposed project except budget
- **Length:** 1/2 page (space provided)
- **Should touch briefly on:**
 - Background and significance of proposed research
 - Specific aims or hypothesis
 - Unique features of project
 - Methodology (action steps) to be used
 - Expected results
 - Evaluation methods



*The most important part of your application!
Must sell the reviewers on you, your career plan,
and your proposed research*

K Award Application: Section II

1. The Candidate:

- **Candidate's Background**
 - Additional information not in biosketch
- **Career Goals & Objectives**
 - "Scientific Biography"
 - How training will fit career development
- **Career Development/Training Activities**
 - New skills & knowledge to be learned
 - Must include training in:



Responsible Conduct in Research (RCR)

K Award Application: Section II

2. Statement(s) by Mentor and Sponsor(s):

- **Description of Training Program**

- Include activities other than research
- Sponsor's experience as mentor
- Concurrent responsibilities
- Assurance of release from duties
- Source of support for research project



- **List other collaborators, consultants**

- Provide letters from each



K Award Application: Section II

3. Environment & Institutional Commitment:

- **Description of Institutional Environment**

- Strong relevant research program
- Availability of resources
- Intellectual interactions



- **Institutional Commitment**

- Adequate support from institution
- Adequate resources (lab, office, etc.)
- Commitment to candidate
- Agreement must be signed by appropriate Institutional Official



K Award Application: Section II

4. Research Plan:

- Statement of Hypothesis & Specific Aims
- Background, Significance & Rationale
- Preliminary Studies & Any Results
- Research Design & Methods



Crafting a Successful Proposal

Provide clear, concise answers to key questions:

- *Why is this study important?*
- *Are the experiments feasible?*
- *What will be accomplished?*
- *How will it change the field?*

Crafting a Successful Proposal

Design a clear experimental plan:

- Devise a clearly stated, testable **hypothesis**, followed by 2 – 4 **specific aims** (research objectives)
- Keep rest of proposal **focused** on this structure
- Describe **outcomes**: What will you learn?
- Anticipate **pitfalls**; outline **alternatives**
- Provide a **timeline**: Limit experiments to what can be accomplished within the time period



K Award Application

Reference Letters:

- Required for K01, K08, K22, K23 and K99 (mentored) applications
- Three (3) letters from individuals other than those involved in the application, i.e., not sponsor/mentor or collaborators
- Should address candidate's competence & potential as an independent investigator
- Use NIH form letter to request letters of reference

A document titled "CAREER DEVELOPMENT AWARD REFERENCE REPORT GUIDELINES (Form R)". It contains instructions for writing reference letters, including sections for "Name of Candidate", "Name of Institution", "Name of Department", "Name of Referee", "Date of Report", and "Name of Sponsor". It also includes a section for "Comments" and a "Signature" line.



Tips for Best Reference Letters

- Develop effective working relationships with potential referees
- Keep your referees updated on your progress
- Make your referees' job easy, provide:
 - Current CV, reprints of papers
 - Draft of proposal

Remember: This is a personal and professional relationship that may last your entire career!

K Awards: Review Criteria

1. Candidate
2. Career development plan
3. Research plan
4. Training activities and schedule
5. Mentor
6. Environment & Institutional commitment
7. Budget



Excellent collection of K Award resources...

UT Southwestern Medical Center

Search this site

Home » Research » Center for Translational Medicine » Education & Career Development » Grant Writing Help » K Grants Application Help

Center for Translational Medicine

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K Grants Application Help

One of the most important considerations in developing a K Grant application is to realize that it isn't a National Research Service Award (NRSA) application. This award mechanism is for postdocs (K29) or junior faculty (K01, K03, K23) members who have already developed strong preliminary data to show feasibility of the approach as well as a conceptual framework for their independent career.

Application Templates for K Grants

- Abstract Template
- Families and Resources Template
- Personal Statement Template
- Plan for Responsible Conduct of Research Training

Sample Sections for K Grants

- K01 Candidate Background
- K01 Career Goals
- K01 Research Plan
- K01 Specific Aims
- K01 Training Activities

Quick Links

Caring Support from the Center for Translational Medicine

Contact Us

CTM Education

Email

Helpful Resources

- UTSW Facts and Figures

<http://www.utsouthwestern.edu/research/translational-medicine/education/grant-writing/k-grants/>

How will your proposal be reviewed?

New videos:



NIH Tips for Applicants

Discover how to make your application more competitive.
Transcripts

www.youtube.com/watch?v=9cNRMscGfHo



NIH Peer Review Revealed

A front-row seat to a peer review meeting.
Transcripts

www.youtube.com/watch?v=fBDxI6I4dOA



Remember...

“The meek may inherit the earth, but not the grant dollars.”

- J. Paul Getty