



National Institute of Environmental Health Sciences
Your Environment. Your Health.

NIH Fellowships and Career Development Awards

Society of Toxicology
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Outline

- What are Fellowships?
 - Components of Fellowship Applications
 - Review Criteria
- What is the K99/R00?
 - Components of the K99/R00
 - Review Criteria for the K99/R00
- Other Award Options
- Submitting an Application
- Resources
- Contact Information





What are Fellowships?

F = Fellowships

Purpose: Support full time research training

Includes stipend, tuition and fees, training

Awards are for individuals

Citizenship requirement

No direct support for research

Current NIH NRSA Fellowship Opportunities



F30: Individual Predoctoral MD/PhD Fellowships

- Up to 6 years of support towards the combined MD/PhD degree
- Two types (one is for students at institutions with currently active, NIH-funded institutional predoctoral dual-degree training programs and the other without)

F31: Individual Predoctoral Fellowships

- Up to 5 years of support towards the PhD degree

F31: Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research

- Up to 5 years of support towards the PhD degree for qualifying candidates
- Up to 6 years of support towards the combined MD/PhD degree for qualifying candidates

F32: NRSA Individual Postdoctoral Fellowship

- Up to 3 years of support following the completion of a doctoral degree

“...Years of support...” – What does that mean?

F31: Individual Predoctoral Fellowships provided up to 5 years of support towards the PhD degree

- “...years of support” means the total number of years an individual can be supported by any combination of NRSA support as a predoctoral person is 5 years
- includes time spent on a T32 institutional training program

Example: A predoctoral student currently supported on a T32 applies for an F31

2 years of support on the T32

3 year limit of support through the F31

= 5 years total

Note – Predoc years do not count towards the Postdoc years

The Fellowship Mentor(s)

- It's expected that the mentor(s) will:
 - Be an expert in the field
 - Match the research interests of the applicant fellow
 - Have funding
 - Have a track record of mentoring
 - Collaborator(s) and/or consultant(s)
 - Are they appropriate?
 - Do they add strength to the training plan/environment?



Components of the Fellowships



Application Components and Page Limits (Form E)

Section of Application	Page Limits
Project Summary/Abstract	30 lines of text
Project Narrative	3 sentences
Introduction to Resubmission or Revision Application (when applicable)	1
Applicant's Background and Goals for Fellowship Training (combines "Doctoral Dissertation and Research Experience," "Training Goals and Objectives," and "Activities Planned Under Award")	6
Specific Aims	1
Research Strategy	6
Respective Contributions	1
Selection of Sponsor and Institution	1
Training in the Responsible Conduct of Research	1
Sponsor(s) and Co-Sponsor(s) Statements	6
Letters of Support from Collaborators, Contributors, and Consultants	6
Description of Institutional Environmental and Commitment to Training (includes F30 and F31 "Additional Educational Information")	2
Applications for Concurrent Support (when applicable)	1
Biographical Sketch	5

Also: Three letters of reference



Applicant's Background and Goals for Fellowship Training (6 Pages)

Doctoral Dissertation and Research Experience

- Summarize your past research experience, results, and conclusions, and describe how that experience relates to the proposed fellowship. Describe any other scientific experiences.

Training Goals and Objectives

- Describe your training goals for the duration of the fellowship and how the fellowship will enable the attainment of these goals.
- Identify the skills, theories, conceptual approaches, etc. to be learned or enhanced.

Activities Planned Under this Award

- The activities should be individually tailored and integrated with your research project.
- Describe the activities (research, coursework, professional development, clinical activities, etc.) you will be involved in and estimate the time devoted to each activity.
- Describe the research skills and techniques that you intend to learn.
- Describe planned non-research activities (e.g. those related to professional development and clinical activities).
- Provide a timeline detailing the proposed research training and related activities for the entire duration of the award.



Research Strategy (6 Pages)

Significance

- Explain the importance of the problem or critical barrier to progress that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive your field will be changed if the proposed aims are achieved

Approach

- Should include a hypothesis and specific aims/objectives that will examine the hypothesis
- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.
- For trials that randomize groups or deliver interventions to groups, describe how your methods for analysis and sample size are appropriate for your plans for participant assignment and intervention delivery.
- Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised. If applicable, a full discussion on the use of select agents should appear in the Select Agent Research attachment below.

Research Strategy (6 Pages)

- Although it's expected that the applicant will write this portion of the application, the mentor/sponsor(s) should review a draft and discuss it in detail with the applicant
 - Reviewers can often tell when the mentor hasn't reviewed the research proposal
 - Reviewers then wonder about the overall mentorship being provided, and

Letters of Reference

- 3 letters of reference are required
- Letters are due by the application due date
 - April 8, August 8, December 8
- It is important to note that neither the mentor/sponsor nor any co-sponsor of this application can be counted as a confidential reference
 - The sponsor/co-sponsor's recommendation is included as part of the application

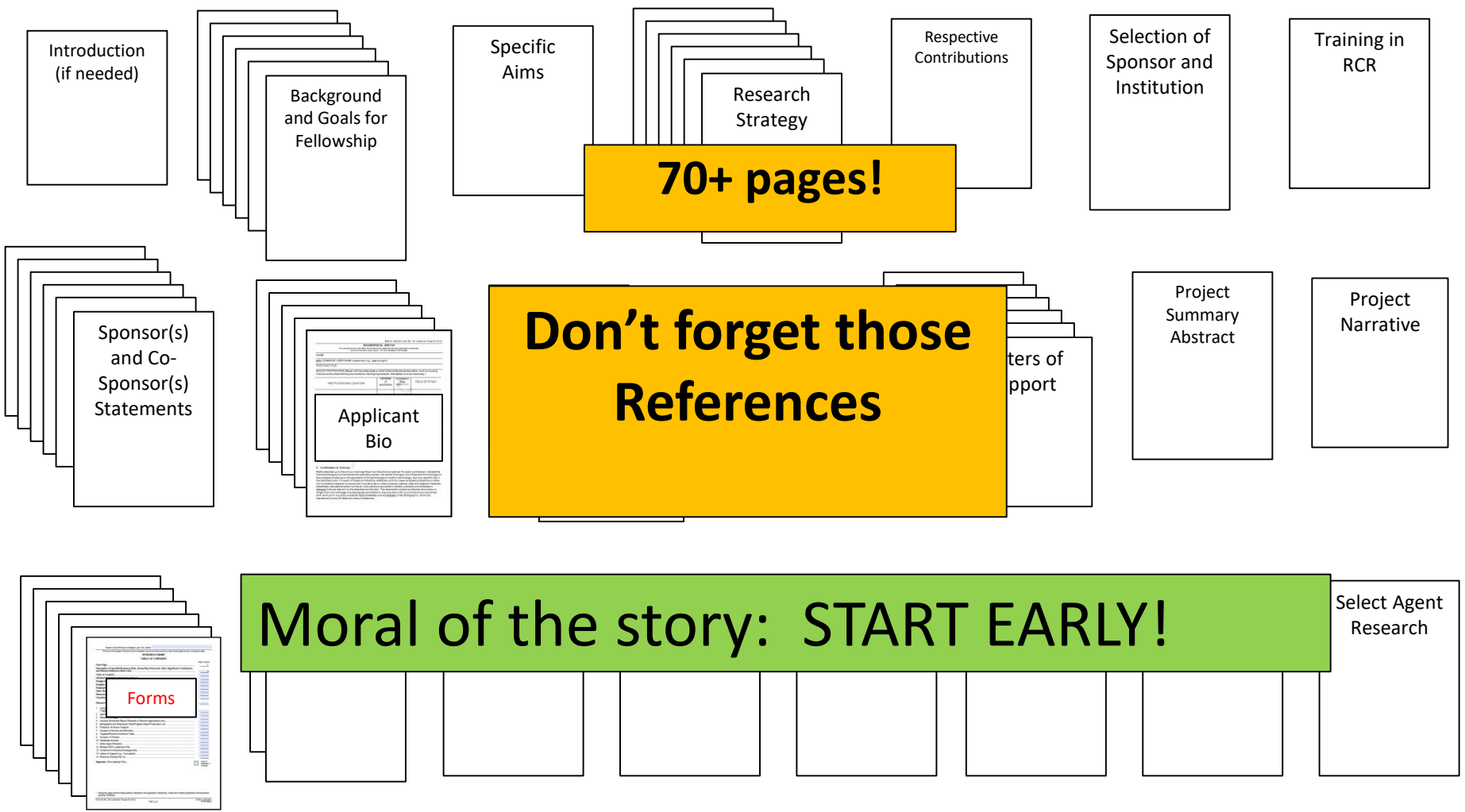
Responsible Conduct of Research (RCR)

- All fellowship applicants must include a plan to obtain instruction in the responsible conduct of research
- Five points
 1. Format
 2. Subject Matter
 3. Faculty Participation
 4. Duration
 5. Frequency of Instruction





It may not seem like much, but....





Review Criteria for Fellowship

Review Criteria for Fellowships

Core Criteria

- Fellowship Applicant
- Sponsors, Collaborators, and Consultants
- Research Training Plan
- Training Potential
- Institutional Environment & Commitment to Training

- Each assigned Reviewer will provide a score (1-9) for each core criteria
- You'll also get an overall impact score (10-90) reflecting the Reviewer impressions of the entire application



What is the K99/R00?

K99/R00: NIH Pathway to Independence Award

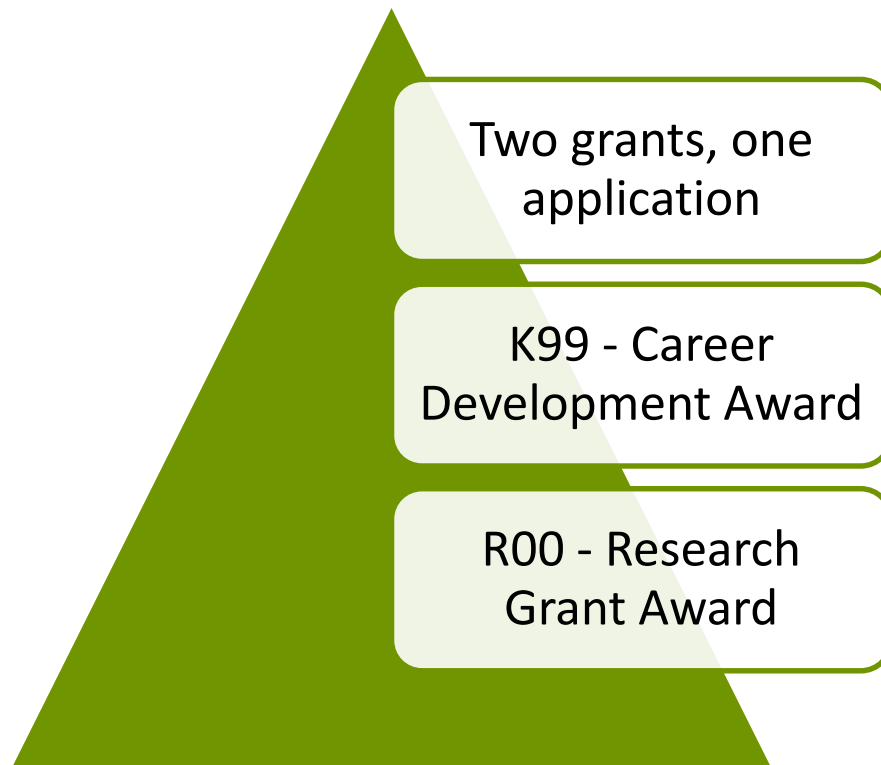
Goal:

- Facilitate the transition from postdoctoral position to independent faculty
- Establish independent research support
- To increase and maintain a strong cohort of new and talented, NIH-supported, independent investigators



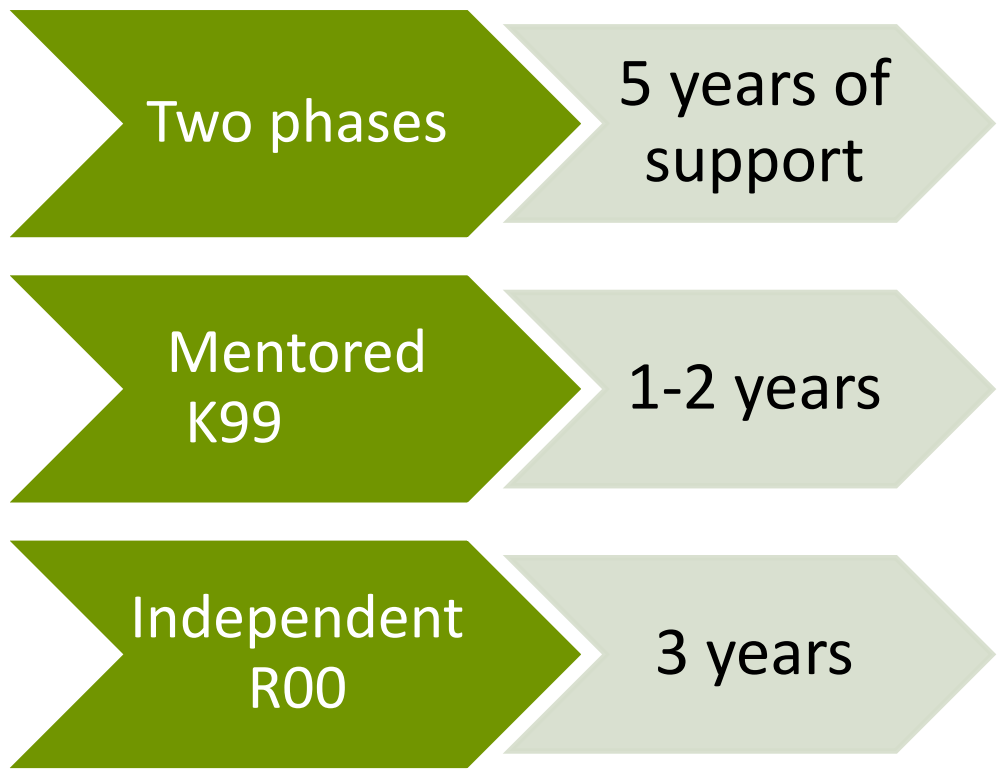


K99/R00: NIH Pathway to Independence Award





The Pathway to Independence



K99: Mentored Phase (1-2 years)

Minimum 75% full-time professional effort to K award is required

Additional training, complete postdoctoral projects, publish results

Salary (\$60k) + fringe benefits

\$20K: research support

12 month minimum mentored phase required



R00 Award (3 years)

Tenure track or equivalent at a domestic NGO

75% protected time for research required

Institutional support is evaluated

Budget: \$249K total cost

Continuous in time with the K99

K99/R00 Award Eligibility

- Must be in a postdoctoral or mentored position
- **No more than 4 years** postdoc experience
- Cannot be a PI on an NIH research grant or career development award or have non-NIH research support over \$100K per year
- Both **U.S. citizens** and **non-U.S. Citizens** are eligible
- Intramural, extramural, or for-profit institutions



General Information

- NIH makes approx. 230 K99/R00 awards per year (23% success rate)
- Most NIH Institutes offer K99/R00s
- Three standard receipt dates per year:

New	Feb 12	June 12	Oct 12
Resubmission	Mar 12	July 12	Nov 12

- Current Program Announcements (with and without clinical trial) : PA-18-397, PA-18-398

– <https://grants.nih.gov/grants/guide/pa-files/PA-18-397.html>

– <https://grants.nih.gov/grants/guide/pa-files/PA-18-398.html>



Review Criteria for K99/R00s

Core Criteria

- Candidate
- Career Development Plan
- Research Plan
- Mentors, Consultants, Collaborators
- Environment & Institutional Commitment to Candidate

What Makes a Strong Candidate?



- Publication record
- Excellent training
- Research & career plans build on training
- Uniquely positioned for proposed research
- Strong potential to succeed in independent research career

Career Development Plan Strengths

- Logical, systematic, appropriate for career stage
- Candidate will gain needed expertise
- Specific courses and experiences outlined which complement research plan
- Will enhance communication skills and professional development
- Includes grant writing and laboratory management skills



Career Development Plan Weaknesses

- Research too close to mentor's, not clear how will develop independent career
- Not clear how the career development plan differs from postdoctoral experience
- Mentor's input into plan not apparent
- No training in grant writing or laboratory management

Characteristics of a Strong Mentor

Outstanding
scientist

Excellent plan to
facilitate transition

Consultants and
collaborators in
appropriate areas

Successfully
mentored other
trainees

Environment

- Strengths: Strong research environment, commitment to candidate
- Weaknesses: Lack of institutional commitment, lack of protected time for proposed project
- Vague, “canned” letter of support
- Lack of facilities or resources
- Lack of letters of support from needed collaborators



Other Award Options

Additional “K Awards” supported by NIEHS

- **Early Faculty:**
 - K01: Transition to Independent Environmental Health Research (TIEHR) Career Development Award
- **Junior faculty development:**
 - K02: Independent Scientist Award
- **Clinically trained scientist:**
 - K08: Laboratory or epidemiology research
 - K23: Patient Oriented research
- **Mid-Career – Patient Oriented Research:**
 - K24: Midcareer Investigator Award in Patient-Oriented Research (K24)
- **Career Shift**
 - K25: Quantitative and Engineering



<https://researchtraining.nih.gov/programs/career-development>

NIEHS Transition to Independent Environmental Health Research (TIEHR) Career Development Award (K01)

- For **newly independent** faculty, within 3 years of appointment
- Need to have independent research space and resources
- The award provides **up to three years** of support for :
 - Salary up to \$75,000 plus fringe benefits per year
 - Research development funds up to \$50,000 per year

<https://grants.nih.gov/grants/guide/pa-files/PAR-18-261.html>

<https://grants.nih.gov/grants/guide/pa-files/PAR-18-291.html>

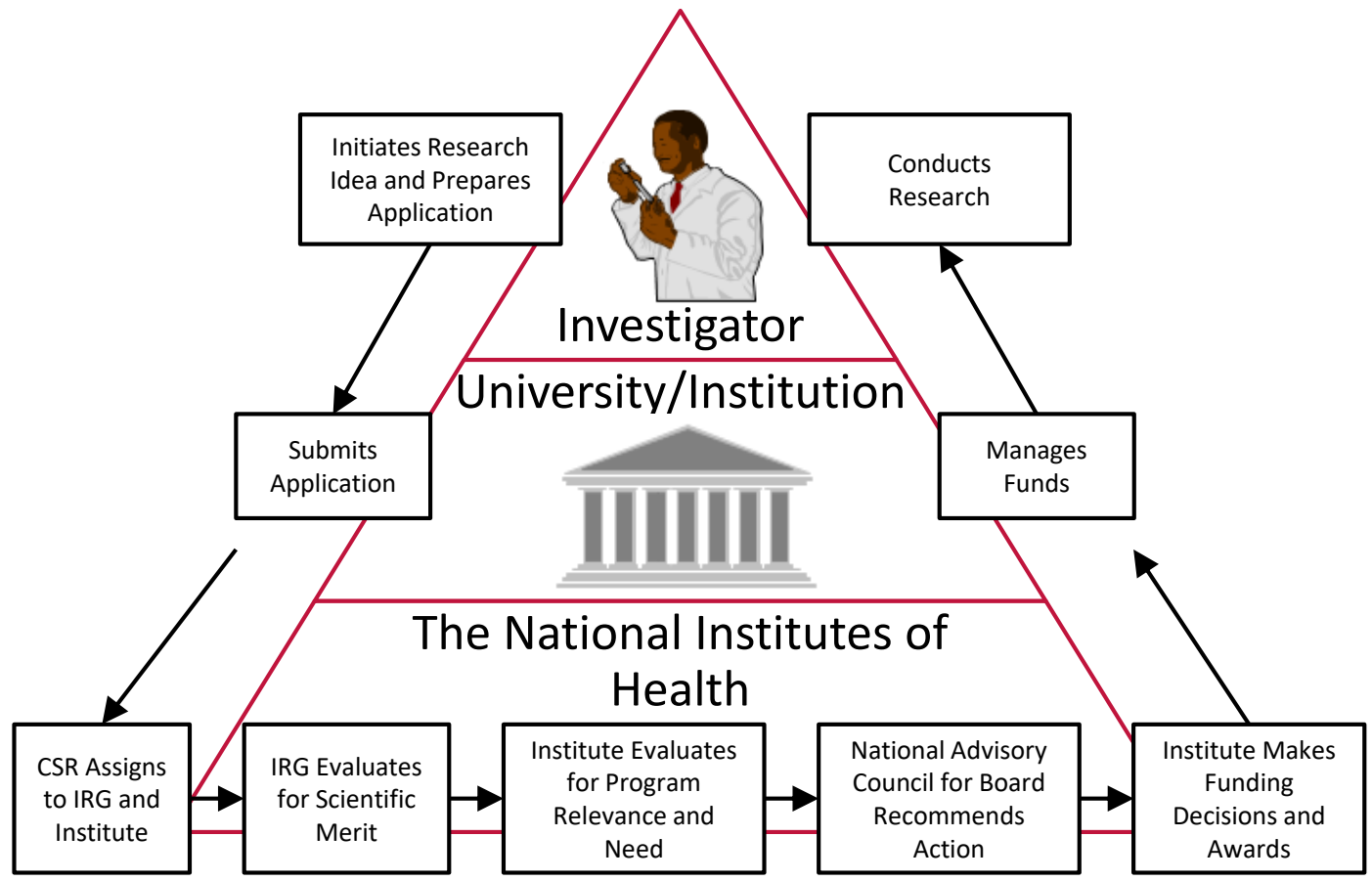


Submitting an Application

Submitting an Application

- Submit to the NIH Center for Scientific Review (CSR)
- **Receipt:** Check for completeness, enter information into database, assign number
- **Referral** (assignments):
 - To a funding agency/institute
 - To a review group (“study section”)
- **Note:** You can request a certain institute for funding or a study section for review. Requests won’t always be honored.

NIH Grant Process





Resources

Internet Resources

- NIH Research Training and Career Development Programs
<https://researchtraining.nih.gov/>
 - Frequently Asked Questions:
<https://researchtraining.nih.gov/resources/faq>
- Resources for New Investigators:
- <https://grants.nih.gov/policy/early-investigators/index.htm>
- Center for Scientific Review Resources:
<http://public.csr.nih.gov/ApplicantResources/Pages/default.aspx>
 - Center for Scientific Review Fellowship Study Sections:
<http://public.csr.nih.gov/StudySections/Fellowship>

Internet Resources, Continued

- Sample Fellowship Applications
 - NIAID: <https://www.niaid.nih.gov/grants-contracts/sample-applications>
- Pathways to Independence Program Announcement (K99/R00):
<https://grants.nih.gov/grants/guide/pa-files/PA-18-397.html>
<https://grants.nih.gov/grants/guide/pa-files/PA-18-398.html>
- K99/R00 Frequently Asked Questions:
http://grants.nih.gov/grants/new_investigators/QsandAs.htm
- NIEHS Transition to Independent Environmental Health Research (TIEHR) Career Development Award (K22):
<https://grants.nih.gov/grants/guide/pa-files/PA-18-291.html>
- <https://grants.nih.gov/grants/guide/pa-files/PA-18-261.html>
- <https://www.niehs.nih.gov/careers/research/trainingfrom/career/k01/index.cfm>



Contact information

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Questions