The Early K99:
A Funding Mechanism Designed for the Career Paths of Data and Cancer Control Scientists
(RFA-CA-20-055, RFA-CA-20-056 and RFA-CA-20-057)

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Cancer Training Branch, Center for Cancer Training

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TRAINING

Cancer Training at NCI   +

Resources for Trainees   +

Funding for Cancer Training

NCI F30 Award

NCI F31 Award

NCI F32 Award

NCI F33 Award

NCI F99/K00 Award

NCI K08 Award

NCI K12 Award

NCI K22 Award

NCI K25 Award

NCI K99 Award

NCI Early K99 Award

NCI R25 Award

Funding for Cancer Training

The National Cancer Institute (NCI) supports fellowships, research career development awards, and training/education research in all areas of cancer research, including cancer prevention, control, behavioral sciences, population sciences, and translational research, at universities and institutions across the country. The Cancer Training Branch manages the training and education awards listed below.

NCI is now accepting applications for the K25 Mentored Quantitative Research Career Award.

New Download the PDF "The Grants Process, Lifecycle of a Grant"

Find Recent NIH Policy Statements and Notices

Name	Award Type	Program Director(s)	Discipline(s)	Career Stage
All opportunities require U.S. citizenship or permanent residency except the F99/K00 and K99/R00 awards, which are open to non-U.S. citizens.				
F30- Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD and Other Dual Doctoral Degree Fellows	Fellowship	Dr. Mark Damico Dr. Yansong Bian	• All Cancer Research	• Predoctoral MD/PhD • Other Dual-Degree Fellows
F31- Ruth L. Kirschstein National Research Service	Fellowship	Dr. Michael Schmidt	• All Cancer Research	• Predoctoral Fellows

Cancer Training Branch – Career Development Awards as of 2018

Predoctoral → **Postdoctoral** → **Independent PI**
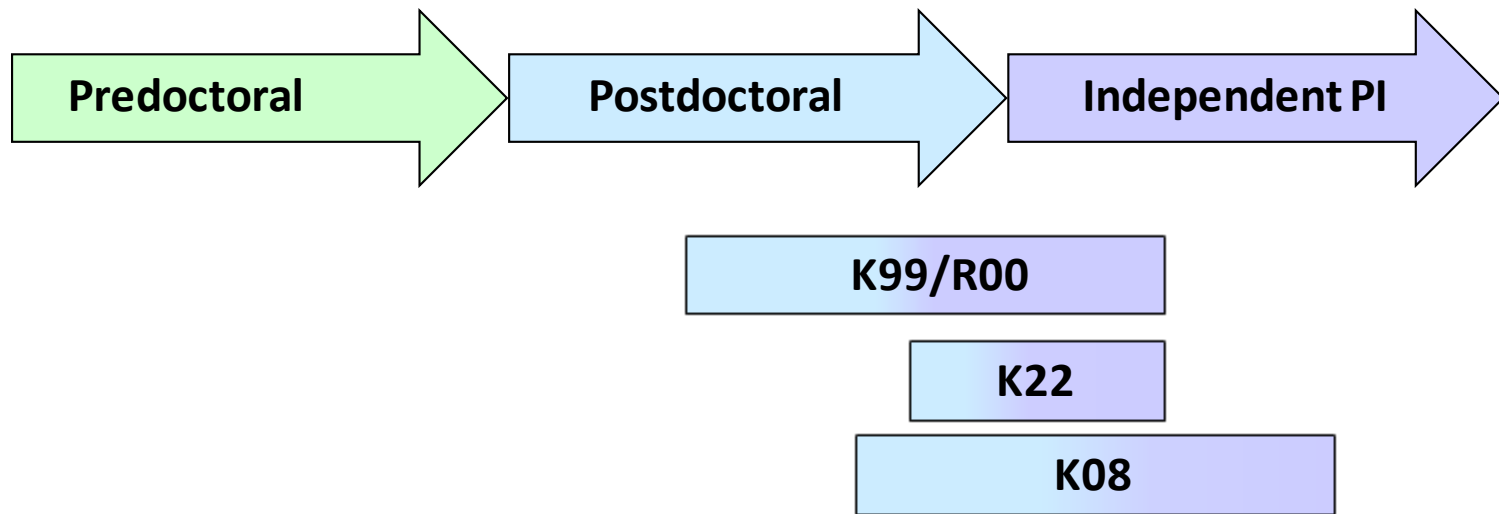
| K99/R00 |
| K22 |
| K08 |

K08: Non-tenured clinician-scientists seeking mentored research experience

K22: Late-stage postdocs (2-8 yrs experience), awarded when independent

K99/R00: Postdocs (up to 4 yrs experience) open to US visa holders

more than 80% of K99/R00 applicants in 3-4 years of postdoc

Early K99/R00 – Rationale for a New Transition Award for Early-Stage Postdocs

- **A significant number of outstanding early-stage postdocs, mostly from data, population and behavioral sciences, get tenure-track positions after 1-2 years of postdoctoral training**

- **Usually they are not competitive for available K awards, which typically target those with 4-8 years of research experience (i.e., parent K99/R00, K08, K22) and a substantial publication record**

- **They are, therefore, disadvantaged compared with peers who had K transition awards**
  - No protected time from teaching
  - No assurance of a competitive startup package
  - **Takes longer on average to get first R01 (~6 yrs) than parent K99/R00 awardees (~3 yrs)**

"Early K99/R00" - The NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00)

Objective: Help outstanding postdoctoral researchers complete needed, mentored training and transition in a ***timely*** manner to independent, tenure-track or equivalent faculty positions

Key Features

- **Two-stage award: K99 phase – up to 2 years of mentored training (1 year minimum);**

  R00 phase – up to 3 years of support as an independent scientist

- **K99 to R00 transition is not automatic - tenure-track assistant professor position (or equivalent) must be offered and accepted**

- **The award provides:**

  - **K99 phase: Salary up to $100,000/year + fringe benefits; R&D funds up to $30K/year**

  - **R00 phase: up to $249,000/year in total costs**

Early K99/R00 RFAs have been re-issued

RFA-CA-20-055 – Independent Basic Experimental Studies with Humans (BESH) Required

RFA-CA-20-056 – Independent Clinical Trial **Not Allowed**

RFA-CA-20-057 – Independent Clinical Trial **Required**

Early K99/R00 – Eligibility

- Postdocs with **less than 2 years of postdoctoral research experience** (as of February 26, 2021) who do not require an extended period of mentored postdoctoral training to achieve independence, especially those in **data science** or **cancer control.** Proposed research must be **cancer focused.**

- Clock begins when all requirements for the degree were met, <u>not</u> when degree was officially awarded.

- Postgraduate clinical training not counted against the 2-year cap.

- **Candidate must be nominated by an institution. An Institution may nominate up to 3 candidates, one each in data science, cancer control science, and other sciences.**

- U.S. citizenship or permanent residency not required - **Individuals on visas are eligible to apply**

- No resubmissions allowed but may apply again next year if still eligible and re-nominated

Institutions limited to Three Applications per Due Date

EACH application MUST be in a different scientific area, as defined here:

(A) **Data Science:** an interdisciplinary field of inquiry in which quantitative and analytical approaches, processes, and systems are both developed and used to extract knowledge and insights from increasingly large and/or complex sets of data. This includes cancer-focused data integration and visualization, systems biology, artificial intelligence, machine learning, informatics, genomics, precision oncology, and developing analytics for epidemiological or biostatistical studies.

(B) **Cancer Control Science:** basic and applied research in the behavioral, social, and population sciences to create or enhance interventions that, independently or in combination with biomedical approaches, reduce cancer risk, incidence, morbidity, and mortality, and improve quality of life. This includes research in epidemiology, behavioral sciences, health services, surveillance, cancer survivorship, and healthcare policy.

(C) **Other Sciences:** all scientific fields supported by the NCI that are not included in (A) or (B). Applicants proposing research in (C) "Other Sciences" may apply if it is reasonable to expect them to transition to independence with an abbreviated period of mentored research training beyond their original doctoral degrees.
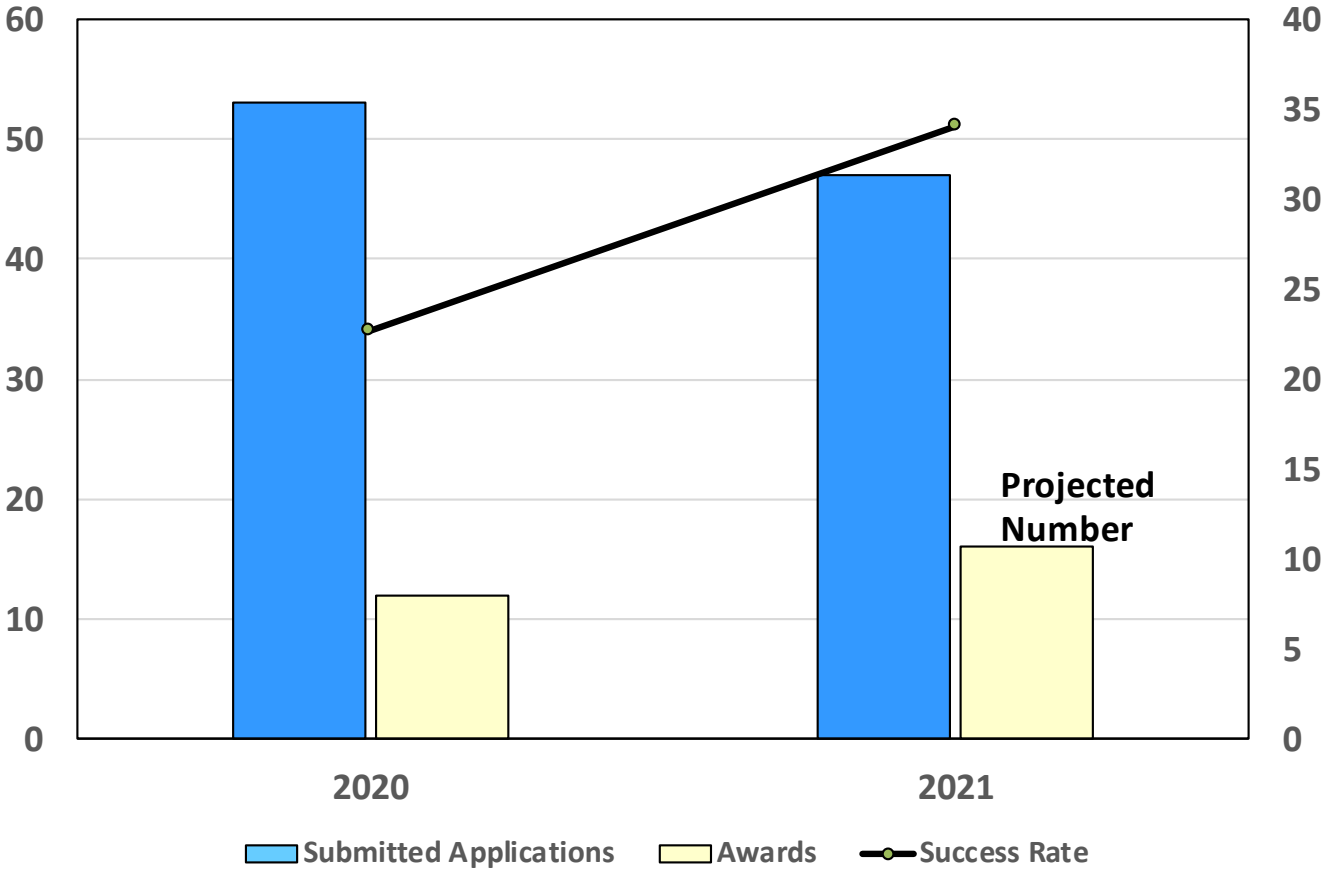
Special Instructions - Nomination Letter

- **Institutional Nomination Letter is required. <mark>Applications without Nomination Letters will be withdrawn</mark>**

- **Must be written and signed by the head of the candidate's department or program**

- **Submitted under "Other Attachments".**

- **The letter is limited to 2 pages**

- **The letter must include the following information:**

  - **Must identify one of the three scientific areas: (A) Data Science, (B) Cancer Control Science or (C) Other Sciences**

  - **Must affirm that the candidate is the institution's sole nominee in the specified scientific area for the specified application due date**

  - **Should describe the institutional commitment to supporting the candidate's search for a tenure-track or equivalent position**

  - **Should describe the main factors that identify the nominee as likely to obtain a tenure-track or equivalent research position at an early career stage**
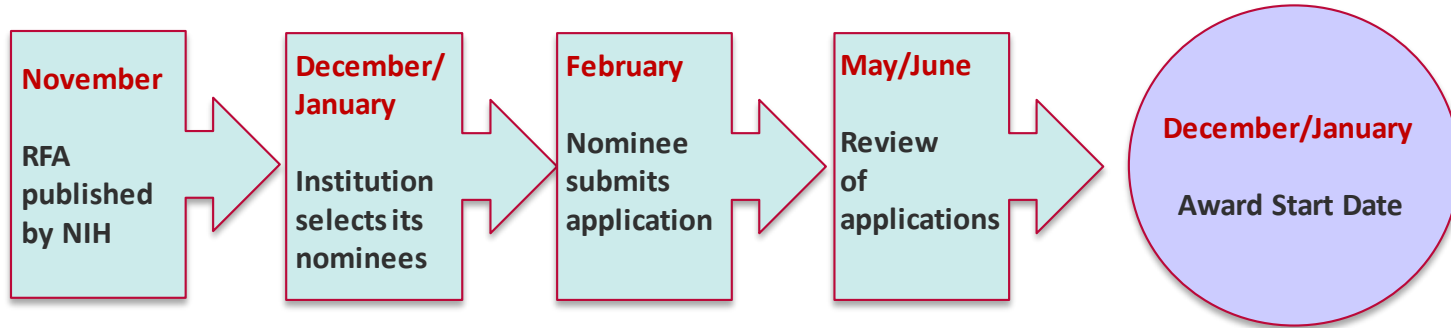
Early K99/R00 – Distinct Features (affecting review of the early K99/R00)

- **Publications from postdoctoral training are <u>not</u> required**

- **Preliminary data are <u>not</u> required. Reviewers evaluate creativity and potential of research to launch and sustain a career rather than extensive preliminary data**

- **Applications reviewed by an "early K99" Special Emphasis Panel – they don't compete with "regular K99" (parent K99) applications**

- **One receipt per year, no resubmissions allowed**

- **This is *a pilot program* – up to 16 awards/year.**

- **This pilot program is expected to continue for the next 3 years**

Early K99/R00: Submitted Applications, Awards and Success Rates

Projected Number

Legend: Submitted Applications, Awards, Success Rate

The Early K99/R00 Timeline

November

RFA published by NIH

→

December/ January

Institution selects its nominees

→

February

Nominee submits application

→

May/June

Review of applications

→

December/January

Award Start Date

RFA-CA-20-055 (BESH)
RFA-CA-20-056 (Independent Clinical Trial NOT Allowed)
RFA-CA-20-057 (Independent Clinical Trial Required)

Application Sections and Tips for Writing the Early K99 Application

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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
Nomination Letter	2

Review criteria: Candidate

(what reviewers are looking for)

Application section(s)

(where reviewers are looking for it)

- Potential to become an independent investigator

- Research productivity, awards

- Strong letters of support

- Prior training

- Biosketch

- Candidate's Background

- Letters of Support

- Letters of Reference

Review criteria: CDP

(what reviewers are looking for)

- Justified?

- Relevant to the proposed research/career path?

- Timeline with milestones of activities, transition to independence

- Advisory committee

Application section(s)

(where reviewers are looking for it)

- Career Goals and Objectives

- Candidate's Plan for Career Development/Training Activities

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

Review criteria: Research Plan

(what reviewers are looking for)

- Strong rationale

- Innovative, hypothesis-driven mechanistic research

- Pitfalls and alternative solutions

- Clear outline K99 vs. R00

- Could it form a strong basis for an independent career?

Application section(s)

(where reviewers are looking for it)

- Specific Aims

- Research Strategy

Review criteria: **Mentor(s)**

(what reviewers are looking for)

- Expertise

- Mentoring track record

- Funding

- Clear statement that the project is portable with the candidate

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

Application section(s)

(where reviewers are looking for it)

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

- Letters of Support from Collaborator(s), Consultant(s), etc.
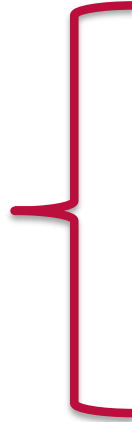
Review criteria: Environment

(what reviewers are looking for)

- Min. 75% effort assurance
- Clearly stated support for the candidate and mentor(s)
- Availability of resources and training

Application section(s)

(where reviewers are looking for it)

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

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Tips for the Mentor and Candidate Sections

- **The primary mentor:** strong track record of funding and mentoring similar young investigators

- **The mentoring team:** encompass **all the areas of expertise** needed for you to achieve your research and career development goals

- **Plans for career development:**
  - Your plans and mentor's plans should be in sync and personalized
  - **Mentor should clearly state that the project is yours when you move to independence**
  - Coursework, seminars, workshops, conferences, meeting with mentors
  - Describe roles of mentors, collaborators in training and research
  - State whose ideas are in the application
  - Describe future plans for publications and grant applications
  - Show relationship between the specific aims and other activities

Tips for Writing the Early K99 Research Strategy

- **Develop a research plan feasible for one person to carry out in 5 years**

- Aims should span both K99 and R00 phases. Identify which aims will be done in the K99 phase vs. R00 phase

- Preliminary data not required – may be based on literature to show feasibility

- Address Significance, Innovation, and Approach, including Rigor & Reproducibility

- Reviewers typically like hypothesis-driven innovative research

- Good foundation to establish independence – can lead to R01

General Tips

- **Read the Funding Opportunity Announcement**

- **Follow the instructions in the Application Guide**

  - Include everything that is requested and nothing that is not

- **Apply before the due date and take advantage of the 2-day application viewing window**

- **If you have any questions before submitting your K99/R00 application contact:**

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