NCI Predoc to Postdoc Transition Award (F99/K00)

RFA-CA-19-002

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November 5, 2018
Welcome to the F99/K00 Informational Webinar for Grants Managers, Faculty and Administrators. My name is Michele McGuirl and I am the Program Director for the F99/K00 mechanism. I will present an overview of the program, then use the majority of the 2 hours to answer your questions. The goal is that, at the end of the webinar, you will have a clear idea on what is needed to put together an application. This webinar is geared toward Grants Managers and the faculty and administrators involved in selecting their institutional nominee, but graduate students are welcome to listen in.

We will hold a second webinar in late January for those who have been selected as nominees and want advice on writing their applications.
Why Offer the F99/K00 Program?

An independent research career is being viewed as a less viable career choice

Available research grants

Available tenure track positions

# of biomedical researchers

# of biomedical trainees
First, a bit of background information on why NCI is piloting this new funding program. We all know currently there is a significant imbalance between the numbers of biomedical trainees and the available tenure track positions. And there is an imbalance between the numbers of biomedical researchers and available research grants. One of the many consequences of this imbalance is that an independent research career is being viewed as a less viable career choice by some of our best graduate students.
The F99/K00 is a new pathway
The F99/K00 pilot program is an effort by the NCI leadership to explore innovative ideas to address this problem. NCI hopes that this dual-phase transition award will identify and encourage outstanding graduate students to commit to pursuing independent cancer research careers. More importantly we hope to show to the awardees and their peers that NCI is committed to explore viable and tractable career pathways for the talented and committed.
Webinar Outline

- Timeline
- Eligibility – who may apply
- Funding – NCI has committed to funding 5 cohorts (annual awards)
- The Nomination Process & Letter of Intent
- Information about the FY16-18 Portfolio of Awards
- Special Application Instructions
This RFA or Request for Applications has special terms – like having a Letter of Intent, a Nomination Letter, and only having one annual submission date.
The F99/K00 Timeline

- **December/January**: Institution selects its nominee.
- **January**: Institution submits Letter of Intent.
- **February**: Nominee submits Application.
- **May**: Review of Applications.
- **September**: Award Start Date.
- **November**: RFA published by NIH.
- **F99 Fellow completes dissertation & seeks/accepts a cancer-focused postdoc position.**
- **Postdoc Institution submits the K00 transition application to NCI.**
- **K00 Scholar conducts the research and career development activities.**
Notes for Slide 9

NCI is committed to renew the F99/K00 for another 2 years. The FY19 RFA has been fine-tuned from past year, so it’s very important to read it carefully and not rely solely on experience with a prior year’s announcement. How does the F99/K00 work?

1. This has one receipt date per year, not like the NRSA (F30, F31, and F32) fellowships, which have 3.

2. Each institution manages its own nomination process to select its nominee, with the lead time needed to craft a solid proposal.

3. By January 22nd, the institution’s grants official, not the nominee, will submit a Letter of Intent. This helps to plan for the review and to prevent mix-ups about who the official nominee is.

4. Applications will be due February 2nd. The NCI website has a page devoted to the F99/K00 that has been updated for this year’s RFA. Applicants and Grants Officials will find helpful Resources and Tips there. Just google F99/K00 and NCI, or wait until my last slide for details on how to find the webpage.
5. Review occurs in May and goes to the August Council.

6. **Awards must have a start date of September 1, 2019 and the duration should be 6 years.**

What happens next, if the applicant receives an F99/K00 award

1. In January 2020, all F99 Fellows attend an NCI F99 Fellows meeting.
2. The F99 phase must be completed by August 31, 2021 (successful dissertation research defense) and the F99 awardee must have secured a cancer-focused postdoc position.
3. NCI will not approve transitions to the K00 phase before 1st 2020.
4. F99 Fellow contacts me as the PD 4 months before graduation for advice on preparing the K00 transition application, which will be submitted by the postdoc institution. Details are in the RFA.
5. F99 Awardee graduates and begins the K00 postdoc position, which can last up to 4 years.
Eligibility

Applicant must be nominated by a PhD-granting institution

- Students earning PhD or other doctoral research degree
  - 3rd or 4th year PhD students finishing up dissertation research
- One nominee per domestic, PhD-granting institution per year
  - identified by a single DUNS number or by multiple DUNS numbers for schools/colleges/divisions within the institution
- US citizens and international students
- Unsuccessful applicants may submit if eligible and if re-nominated
- Current F31 awardees and applicants are eligible
Notes for Slide 12

1. Who can apply? The intended applicants PhD or other research degree students (DrPH, ScD) who are 3rd or 4th year graduate students and are within 2 years of finishing their dissertations.

2. The program year is calculated from the time of initial enrollment and not after you start your dissertation project or pass a candidacy exam.

3. Dual-degree, or professional doctorate/clinical degree students are not eligible. This is because their training timeline is not compatible with this new funding mechanism – there should not be a break between the 2 phases of the award.

4. One nominee per degree-granting institution per year, for all schools/colleges/divisions in an institution, even if they have individual DUNS numbers.

5. If the nominee works mainly at a non-academic research center, the application must still come from the institution that confers the degree. But the research center can co-nominate and contribute to the application.

6. International students studying in the US who are here on a visa ARE eligible for the F99/K00.
More Notes for Slide 12

1. If someone is a 2nd year student but will be graduating within the next 2 years, he/she may email me to ask for an exception. For example, if someone already has an MS degree, he/she might finish up more quickly than someone entering with a BS degree.

2. If someone is beyond year 4, but took a documented and extended leave of absence, that person may email me to ask for an exception.

3. Exceptions should be requested prior to the institutional nomination process.

4. No resubmissions are allowed but someone may be nominated two years in a row if the person still meets the eligibility requirements.

5. F31 applicants and awardees are eligible. Only one fellowship award is allowed – the F99 or F31, but not both. F31 awardees will need to terminate the F31 before accepting an F99/K00.

6. The NIH does not allow 2 overlapping applications to be under review at the same time. This means that if someone will be submitting an F31 for the December 2018 deadline, I should be informed ASAP, so that I can manage the potential conflict internally. It is not a big deal as long as I know about it in advance.

7. An F99 applicant may NOT submit an F31 in April 2019, but must wait until August 2019 to submit the F31.
Funding

1-2 years of support for completing PhD dissertation (F99)

- Stipend, Tuition, and Training Related Expenses similar to F31
- Funds to attend an F99 Fellows meeting

Up to 4 years of support for postdoc training (K00) at a US institution

- Higher salary than F32
  - ($50,000 with $3,300 annual increase + fringe benefits/health insurance)
- Up to $4500 for Tuition, plus $3000 for Research Expenses
- 8% Indirect Costs allowed for the Institution
- Funds to attend a K00 Scholars meeting
This program will provide 1-2 years support for completing the Ph.D. dissertation, that is, the F99 phase. The funding is similar to the F31 fellowship, with an additional $1500 to attend an NCI-sponsored fellows meeting.

After completion of the PhD dissertation, the awardee can bring 4 more years of support to postdoctoral training, that is, the K00 phase, to his or her chosen institution and mentor lab. The awardee receives a salary, not a stipend, at a level that is higher than the F32 stipend for a new postdoc. The salary comes with fringe benefits, tuition support may be requested, there is a small research and training expenses budget, and there are travel funds to attend an NCI-sponsored K00 Scholars meeting. The institution collects 8% indirect costs.
Letter of Intent

By 1/22/2019, Grants Official sends an email memo indicating the institution’s intent to submit an application to RFA-CA-19-002 to:

Michele McGuirl, Ph.D.
National Cancer Institute (NCI), Cancer Training Branch
Email: mcguirlma@mail.nih.gov

- The memo should include:
  - Likely title of the application
  - Name, address, and telephone number of the nominee
  - Name of the primary sponsor/mentor
  - RFA number
Letter of Intent (LOI) – Its purpose is to help anticipate and manage the review panel, and for this RFA, to help me to spot any misunderstandings about who was selected to be the institutional nominee, well before the applications are submitted. This happens every year, and the LOI serves as a heads up for me to contact the institution and ask for clarification. NIH policy is that letters of intent are non-binding, but I urge you to send one in.
There is Limited Data for the F99 Mechanism

- All areas of research were supported; similar patterns as NCI Research grants, Fellowships, and Career Development grants
- No type of cancer was viewed as more important than another
- NCI Expects to make 24 awards in 2019.
- Reviewers rewarded Applicants with publications
<table>
<thead>
<tr>
<th>Applications</th>
<th>Awards</th>
<th>Success Rate (%)</th>
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<tr>
<td>Total</td>
<td>239</td>
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<td>Women</td>
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<td>F31 Awardees</td>
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<td>NCI Cancer Center</td>
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<tr>
<td>Top 150 NCI $ Institutions</td>
<td>194</td>
<td>79</td>
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**FY2018**

- NCI Funding Rank
- Application Score

*Funded Project Awards Success Rate (%)*
## FY16-18 Additional Statistics

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<tr>
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<th>Applications</th>
<th>Awards</th>
<th>Success Rate (%)</th>
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<tr>
<td><strong>Total</strong></td>
<td>239</td>
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<tr>
<td>Diversity Applicant (inferred from application information)</td>
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<td>Prior T32 Support</td>
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<tr>
<td>3\textsuperscript{rd} Year Student</td>
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<td>4\textsuperscript{th} Year Student</td>
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<td>Beyond 4\textsuperscript{th} Year</td>
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<td>Hold Advanced Degree</td>
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<td>≥ 1 First-Author Publication in Top Journal</td>
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FY18 F99/K00 Applications/Awards by Cancer Type

- % of Applications
- % of Awards

- Breast
- Non-Specific
- Colorectal
- Brain
- Blood
- Lung
- Bone
- Ovarian
- Liver
- Pancreatic
- Kidney
Indications of F99/K00 Programmatic Success

• 36 FY16 F99 awards offered
  • 1 data scientist declined F99, opted for industry

• 34 FY16 F99 awardees have transitioned to K00 by end of 2018
  • 1 data scientist opted for industry

• 4 FY17 F99 awardees have/will transition to K00 by end of 2018

• K00 mentor choices: 7 HHMI investigators and 1 Nobel Laureate

• Honors
  • 3 gave oral presentations at AACR 2018
  • 1 attended Lindau Nobel Laureate Meeting
Special Instructions- Nomination Letter

- Read the RFA instructions!!
- Institutional nomination letter is required
- The nominee is to be selected based on faculty evaluation of an applicant’s potential and desire to become a successful independent cancer researcher.
  - must include a description of the nomination process
  - how are eligible students are informed/solicited?
  - how is faculty evaluation/selection conducted?
Nomination Letter (2 pages)

- Signed by the head of the graduate program and the institutional grants official
  - If research involves another institution, submit a joint nomination letter with signatures from both institutions
- Names of the nominee and the primary sponsor
- Confirms the eligibility of the nominee
  - 3rd or 4th year of a PhD program and expected to finish within 2 years
  - If applicable, describes any exception to eligibility
  - If applicable, describes the visa status
Notes for Slide 26

The letter should be signed by the head of the graduate program and the institutional grants official. Along with the Letter of Intent, this guards against there being multiple nominees from the same place. If the dissertation involves more than one institution, for example if you are doing research at a center that does not offer a formal degree, we encourage you to submit a joint nomination letter from both program heads.

**Nomination Process: is handled by the institution – based on FACULTY INPUT.**

The Nomination Letter should confirm eligibility, that the nominee is in the 3rd or 4th year of a PhD program in an appropriate biomedically related field. The nominee is not required to be doing cancer research for the F99 phase, but MUST propose doing cancer-focused research for the K00 phase. It is up to the nominee to make a strong case that he/she is committed to pursuing a career as an independent cancer researcher. If an eligibility exception was requested and granted, the nomination letter should mention the reason.
To ask about exceptions to 3rd and 4th year eligibility, contact Michele McGuirl. As previously mentioned, some examples of granted exceptions are:

- For someone who had a documented leave of absence due to health
- For someone in Year 2 who held MS and was expected to graduate within 2 years

If the nominee is here on a visa, the letter should also give assurance that the candidate’s visa status is up to date, that there are no known obstacles for completing the F99 phase, or for obtaining a visa at the time of the K00 transition. One example of a common obstacle for the K00 phase is a home country requirement to return after the PhD is awarded. **Do not include the visa in the application.**
Fellowship Applicant Section (6 pages)

Address both phases of the F99/K00

- Doctoral Dissertation and Research Experience
  - How do combination of past research experiences and the F99/K00 plans contribute to achieving the long-term career goal?

- Training Goals and Objectives
  - What is the long term career goal? Stress new knowledge, technical expertise, and professional skills, existing strengths as well as gaps
  - If K00 research direction is very different from the F99, provide F99 plans that provide preparation for the new K00 field
  - Include a strategy for identifying a K00 mentor

- Activities Planned Under This Award
  - Scientific and professional development activities for each phase
  - Timeline with scientific, professional development, and career milestones
Specific Aims (1 page)

All applications **MUST** use these two Specific Aims:

**Aim 1**: The Dissertation Research Project

**Aim 2**: The Postdoctoral Research Direction

**Research Experiences in Clinical Trials**

*If the applicant is proposing to gain experience in a clinical trial as part of his or her research training*, describe the relationship of the proposed research project to the clinical trial.
Let’s turn to the Research Training Plan. The typical nominee is far along in their defined dissertation research project but has yet not committed to a specific postdoc lab. This presents a challenge for writing a traditional Research Training Plan – NCI does not want to prolong the time to degree by having applicants propose additional new experiments for the F99 phase, and applicants are not yet in a position to write a detailed research proposal for the K00 phase.

To address this, **NCI requires that all applications must use these 2 specific aims.**
Research Strategy Section (6 pages)

- **Aim 1 – Significance:** Overview of the dissertation research, the scientific question being addressed and its potential impact on the research field.

- **Aim 1 – Approach:** Background, goal, rationale and hypotheses of the graduate research project(s).

- **Aim 2 – Significance:** Describe a specific scientific question or observation for the K00 phase work. Place in context with applicant’s research interests and advancing this research field.

- **Aim 2 – Approach:** A general description of how the research will be conducted, including approaches and methodologies, anticipated results, challenges that might arise and how to address them.
The Research Strategy has 2 components: Significance and Approach. Innovation is not required for fellowships. The combination of plans for the PhD and postdoc phases should prepare the applicant for a career as an independent investigator in cancer research.

There should be a logical and compelling connection between the phases and the aims, and they should support the career goal.

Aim 2: No need for K00 phase to be a continuation of the PhD research. In fact, reviewers look for evidence of training potential – the need for more training.
Finding the NCI F99 Website

cancer.gov/cct

Resources

- Program Announcement
- Transition Info/Forms
- Informational Webinars (slides with transcript)
- Answers to frequently asked questions
Finally, a PDF of these slides with a transcript of the talking points are available on the F99/K00 website. Another webinar for nominees will be held on 1/24/2019.

You go to cancer.gov/cct, then click on Funding For Cancer Training in the left-side box, scroll down and then click on the NCI F99 Award. Look under Resources, which is where the slides will be posted. There is a lot of other helpful information there, as well. I encourage you to read the Answers to FAQs before emailing me. I’m happy to respond, but the FAQs might be faster.