Funding for the Next Generation of Cancer Researchers

Nastaran (Nas) Zahir, PhD
Branch Director, Cancer Training Branch, Center for Cancer Training
NCI Funding for Cancer Training

Cancer Training Branch Center for Cancer Training (CCT)

- Institutional Training Grants
- Research Education Grants
- Individual Career Development Awards
- Transition Awards
- Fellowships

Diversity Training Branch Center to Reduce Cancer Health Disparities

- Research Education Grants
- Individual Career Development Awards
- Transition Awards
- Fellowships
- Research Supplements to Promote Diversity

Branch Director: Nas Zahir, PhD
https://www.cancer.gov/grants-training/training/funding

Center for Global Health

- Institutional Capacity Building and Mentored Training
- International Research Scientist Development Award

Program Director: Sudha Sivaram, DrPH, MPH
https://www.cancer.gov/about-nci/organization/cgh/research-training
NCI Funding Opportunities for Cancer Training

The career stage indicated is when an applicant is eligible to apply for each award

**KEY**
- **F** = Fellowship
- **K** = Career Development
- **R** = Research
- **T** = Training
- **D** = Awards available to promote diversity in addition to the parent funding opportunity
- **D†** = Awards only available to promote diversity
- ***** = Non-U.S. citizens eligible to apply
- **^** = NIH Intramural postdocs eligible to apply
- **PI** = The principal investigator of the application must be an established investigator

**PREDOCTORAL**
- F30, F31-D, F99/K00*

**POSTDOCTORAL**
- F32, K01-D†, K08-D, K22-D^, K25, Early K99/R00^, K99/R00^*

**EARLY CAREER INVESTIGATOR**
- K01-D†, K08-D, K25, K43

**ESTABLISHED INVESTIGATOR**
- D43, K12-PI, K25, R25-D, T32-PI

**Loan Repayment Programs (LRPs)**

Supplements to Active Awards to Promote Diversity, Re-entry, and Re-integration in Cancer Research Careers

https://www.cancer.gov/grants-training/training/funding
The NIH Loan Repayment Program Helps Pay Back Education Loans

- **NCI Eligible Candidates:** Researchers conducting cancer-focused studies in clinical translation, pediatric cancer, cancer health disparities, epidemiology, population sciences, and prevention; including clinical research for individuals from disadvantaged backgrounds.

- **Award** is up to $50,000 per year and renewable if applicant continues to meet eligibility criteria and has eligible educational debt

- **2-year research commitment**

- **Application deadline:** annually in November (11/16/2023)

- **FY23:** NCI funded 226 applications. Success rate: 83%

- **NCI LRP Liaison:** Mark Damico, PhD mark.damico@nih.gov

https://www.lrp.nih.gov/
The NCI Predoctoral to Postdoctoral Transition Award (F99/K00)

Reissued RFA-CA-23-042 | Deadlines: Nov 17, 2023; Nov 19, 2024

Eligibility
- 3rd and 4th year health-related PhD students
- US Citizens, non-citizen nationals, permanent residents, Non-US Citizens
- 1 nominee per institution

1-2 years of support for completing PhD dissertation (F99)
- Stipend, Tuition, and Training Related Expenses at NRSA levels

Up to 4 years of support for postdoc training (K00) at a US institution
- Salary with annual increases at levels greater than NRSA levels

5-year average success rate: 39%

https://www.cancer.gov/grants-training/training/funding/f99

NCI Program Director: Dr. Mariam Eljanne
Metrics of F99/K00 Awardees

K00 Transitions to Postdoctoral Phase (Cohorts 1-6: 147 K00 awardees)

- 91% of F99 awardees have transitioned or are in the process of transitioning to K00 phase at the expected time period
- 95% changed institutions when they transitioned and 100% changed research group

K99/R00 Applications and Awards (Cohorts 1-3: 78 K00 awardees)

- 52% application rate
- 27% (6/22 applicants) received a fundable score
Fellowship Applications: Factors to Consider

- NCI requires that the sponsor have research funding (R01 or equivalent) because fellowships do not fund the research project.
- Research training that has a clear cancer focus.
- Typical timing of submission:
  - F30: year 4 of a dual-degree program
  - F31: year 3 of a PhD program; F99/K00
  - F32: 1st (30%) or 2nd (60%) year of postdoctoral fellowship
- NCI expects the applicant to have intellectual input in the project.
Individual Career Development Awards (Ks)

Goal: Ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation's biomedical, behavioral, and clinical research needs.

Designed to foster the transition of new investigators to research independence.
Individual Research Career Development Awards (Ks)
Fostering the transition of new investigators to research independence

<table>
<thead>
<tr>
<th>Mentored vs non-mentored (independent)</th>
<th>“Early” K99/R00 (data sci, cancer control sci)</th>
<th>Parent K99/R00</th>
<th>K01 Diversity (NCI-CRCHD)</th>
<th>K22 and K22 Diversity</th>
<th>K08 and K08 Diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mentored</strong></td>
<td>Mentored phase / Non-mentored phase</td>
<td>Mentored phase / Non-mentored phase</td>
<td>Mentored</td>
<td>Non-mentored</td>
<td>Mentored Clinical Scientist</td>
</tr>
<tr>
<td><strong>Non-mentored</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Citizenship</strong></td>
<td>U.S. citizens or non-U.S. citizens</td>
<td>U.S. citizens or non-U.S. citizens</td>
<td>U.S. citizens or permanent residents</td>
<td>U.S. citizens or permanent residents</td>
<td>U.S. citizens or permanent residents</td>
</tr>
<tr>
<td><strong>Eligibility</strong></td>
<td>≤ 2 years postdoc training</td>
<td>≤ 4 years postdoc training</td>
<td>2 – 5 years postdoc training</td>
<td>2 – 8 years postdoc training</td>
<td>Postdoc and early career</td>
</tr>
<tr>
<td><strong>Duration of Award</strong></td>
<td>1-2 years K99 1-3 years R00</td>
<td>1-2 years K99 1-3 years R00</td>
<td>Support for 3 – 5 years protected time</td>
<td>Support for 3 years activated when independence begins</td>
<td>Support for 3 – 5 years protected time</td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>Salary up to $100K Fringe benefits Research $30K (K99 portion)</td>
<td>Salary up to $100K Fringe benefits Research $30K (K99 portion)</td>
<td>Salary up to $100K Fringe benefits Research $30K</td>
<td>Salary up to $100K Fringe benefits Research $50K</td>
<td>Salary up to legislative cap Fringe benefits Research $50K</td>
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The NCI Pathway to Independence Award for Early-stage Postdoctoral Researchers (K99/R00)

- Funding opportunities will be reissued soon
- Candidate must be nominated by institution. Postdocs with less than 2 years of postdoctoral research experience (as of submission due date); research in molecular cancer prevention, data science, or cancer control science especially encouraged. Extensions of eligibility window may be considered on a case-by-case basis (contact NCI program director)
- Institution may nominate up to 4 candidates, one in data science, one in cancer control science, one in molecular prevention, and one in other sciences
- US citizenship or permanent residency not required - Individuals on visas eligible

4-year average success rate: 25%

https://www.cancer.gov/grants-training/training/funding/early-k99

NCI Program Director: Dr. Sergey Radaev
The Pathway to Independence Award (K99/R00)

Mentored Phase (K99) (1-2 years):
- Applicant within 4 years of postdoc research experiences
- Supports postdoctoral research training & career development
- Allowable Costs: Salary: $100K/year; Research Support: $30K/year

Independent Scientist Phase (R00) (up to 3 years):
- Supports independent research project.
- Allowable Costs: Salary, fringe benefits, research support: $249K/year

[Graph showing 5-year average success rate: 15%]

https://www.cancer.gov/grants-training/training/funding/k99
NCI Transition Career Development (K22) Award

Postdoc/Clinical Fellow
(mentored, non-independent phase)
>2 years < 8 years postdoc research

Tenure-track
Assistant Professor
(Independent Phase)

K22 Application
Letter of Intent
To Commit Funds
12 months

K22 Award

5-year average success rate: 14%

<table>
<thead>
<tr>
<th></th>
<th>R01 Applications</th>
<th>R01 Awards</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>K22 Awardees</td>
<td>196</td>
<td>125</td>
<td>64%</td>
</tr>
<tr>
<td>Non-Awardees</td>
<td>138</td>
<td>41</td>
<td>30%</td>
</tr>
</tbody>
</table>

https://www.cancer.gov/grants-training/training/funding/k22
Resources for Early Career Researchers
NCI INSIDE CANCER CAREERS PODCAST

WITH YOUR HOST DR. OLIVER BOGLER

Inside Cancer Careers
A Podcast from NCI

Scan & Subscribe
NCI Rising Scholars:
Cancer Research Seminar Series

A virtual monthly seminar series highlighting the research and important contributions made by NCI-supported postdoctoral fellows and early career investigators.

https://events.cancer.gov/cct/risingscholars/registration
NCI Transition Career Development Workshop

January 16–17, 2024

The goal of the workshop is to facilitate current NCI career development awardees and prospective applicants to become better acquainted with the elements involved in transitioning to cancer research independence.

Register Today!

https://events.cancer.gov/nci/tcdworkshop
Thank you for your attention

Email: nas.zahir@nih.gov

LinkedIn CCT Page: Train at NCI

Encourage your students and postdocs to apply, visit our website for more information, and contact us

cancer.gov/CCT