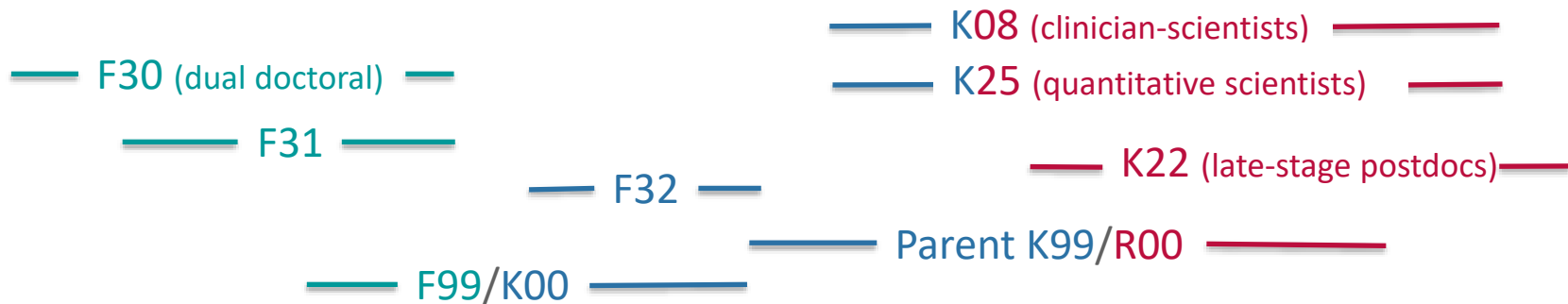


The NCI Pathway to Independence Award for Outstanding Early-Stage Postdoctoral Researchers (K99/R00)

Sergey Radaev, PhD

Cancer Training Branch, Center for Cancer Training

NCI Support for Training at Different Career Stages

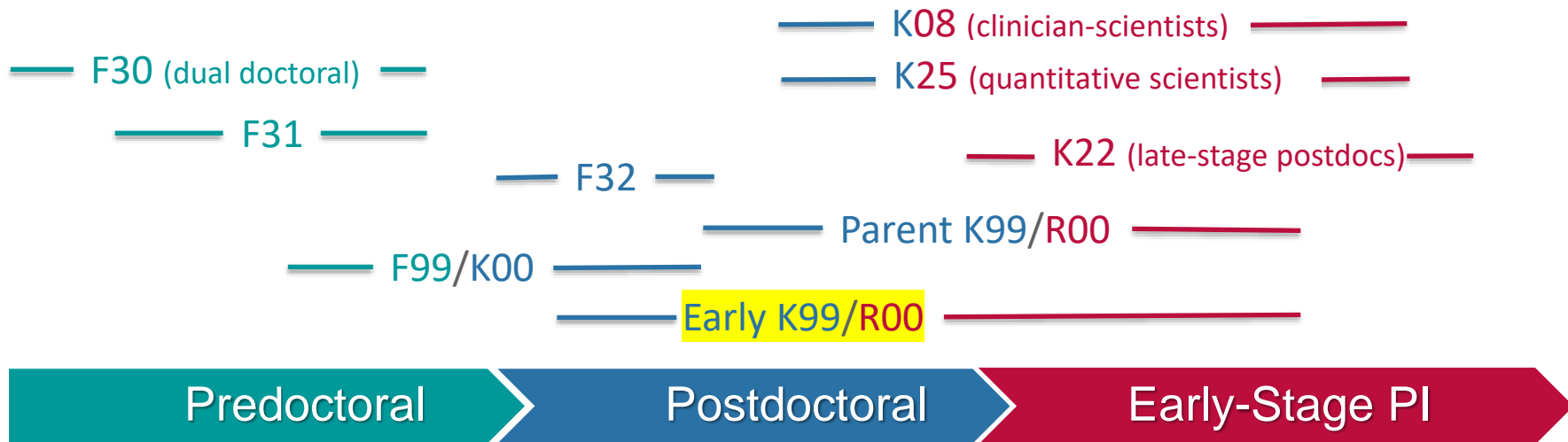


- K08, K25 - Highly specialized; on average 8 years post-medical degree for K08
- K22 - Late-stage postdocs (2-8 years of postdoc); awarded when independent
- Parent K99/R00 – up to 4 years of postdoc; most applicants in 3rd-4th year of postdoc
- F32 – not as successful as K-grants for establishing an independent research career

Rationale for the NCI Pathway to Independence Award for Outstanding Early-Stage Postdoctoral Researchers (the “early” K99/R00 award)

- A significant number of postdocs from data, population, and behavioral sciences obtain tenure-track positions with **≤ 2 years** postdoc experience
- Early-stage postdocs are not competitive for other available NCI K awards, which target those with 3-8 years of postdoctoral research experience and a substantial publication record
- They can therefore be disadvantaged compared with peers who had K transition awards (e.g., parent K99/R00)
 - No protected time from teaching; less competitive startup packages
 - Take longer to get first R01 from the time they obtain their independent academic appointment (~6 years) compared to parent K99/R00 awardees (~3 years)
- **A transition award for early-stage postdocs is needed: *Pilot RFA approved by SPL and BSA in 2018***

NCI Support for Training at Different Career Stages



NCI Early K99/R00 (new PAR)

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

- *This program is designed for outstanding postdoctoral fellows who do not require extended periods of mentored research training beyond their original doctoral degrees before transitioning to research independence. Researchers working in **cancer data science, cancer control science,** and **molecular/precision cancer prevention** are particularly encouraged to apply.*

NCI Early K99/R00 – Key Features of new PAR

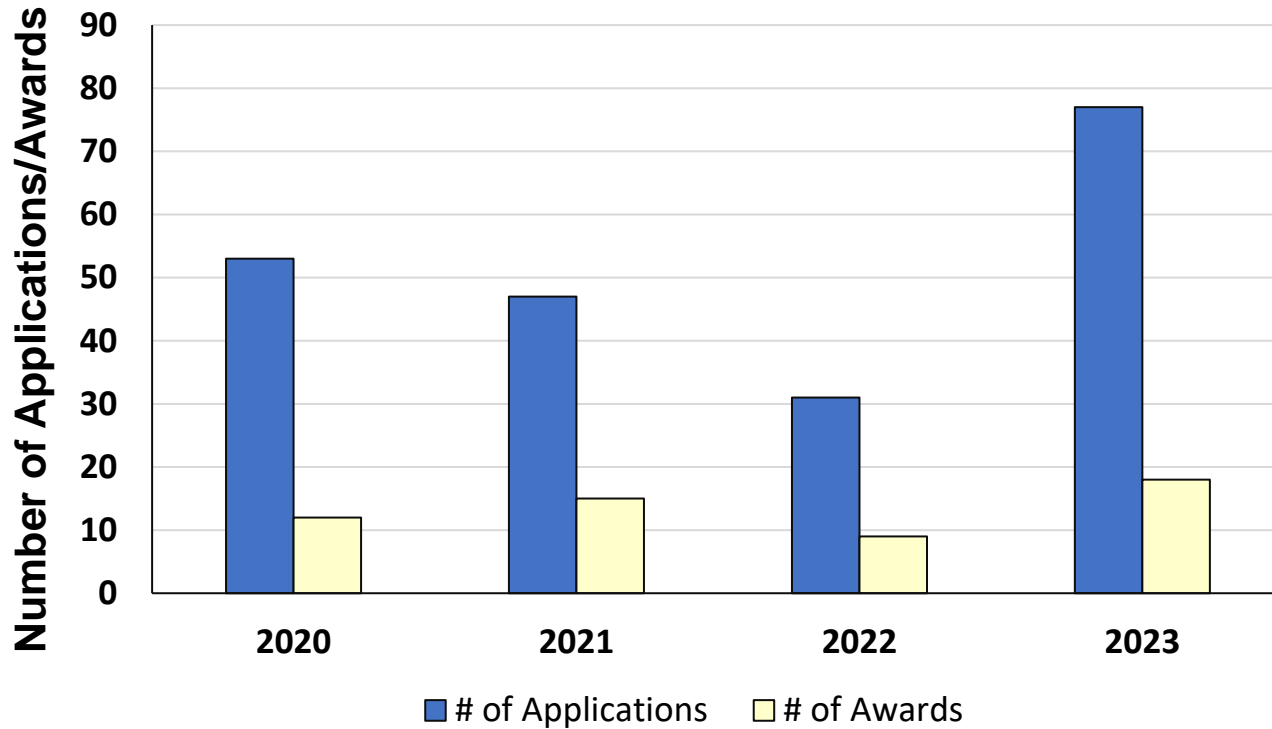
- Dual-Phase transition award: postdoctoral K99 phase (up to 2 years) → independent R00 phase (up to 3 years)
- Postdoctoral fellows with ≤ 2 years of total aggregate postdoctoral research experience (as of application due date)
- Candidate must be nominated by applicant institution (Nomination Letter required). Institution may nominate up to 4 candidates per review cycle: (i) one in Cancer Data Science, (ii) one in Cancer Control Science, (iii) one in Molecular/Precision Cancer Prevention, and (iv) one in Other Cancer Research
- U.S. citizenship or permanent residency not required - Individuals on U.S. visas are eligible to apply
- Review conducted separately from parent K99/R00 applications
- Standard application due dates apply

Research field definitions for the purpose of the early K99/R00 award

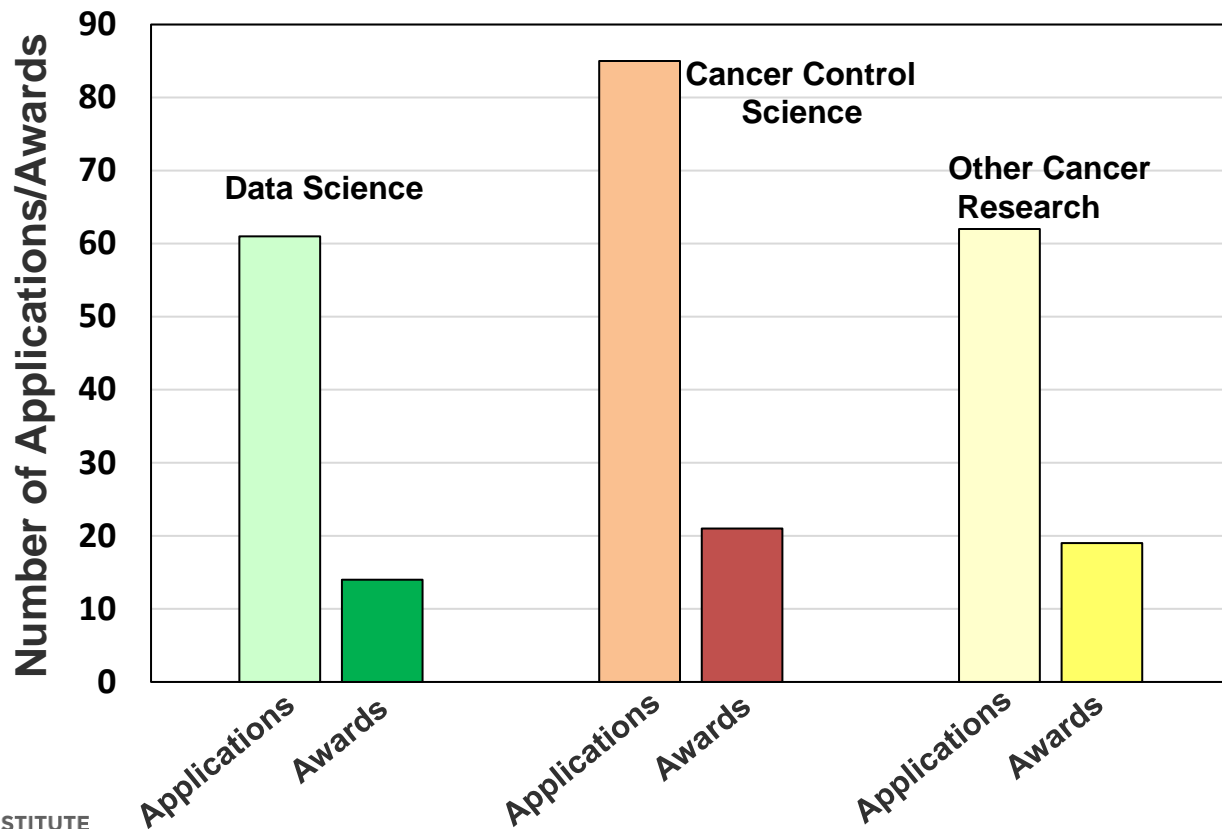
- **(A) Cancer Data Science:** an interdisciplinary field of inquiry in which quantitative and analytical approaches, processes, and systems are both developed and used to extract knowledge and insights from increasingly large and/or complex sets of data. This includes cancer-focused data integration 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, biomedical and population sciences to create or enhance interventions that, independently or in combination reduce cancer risk, incidence, morbidity, and mortality, and improve quality of life. This includes research in epidemiology, behavioral sciences, health services, surveillance, cancer survivorship, dissemination and implementation, and health policy.
- **(C) Molecular/Precision Cancer Prevention:** basic research to understand mechanisms of cancer formation, development and progression of cancer precursors, and to translate basic biological knowledge into novel human interventions and human-centered adaption of current interventions with the potential to reduce cancer risk, incidence, and mortality, and improve quality of life. This includes but is not limited to research in molecular and systems biology, diagnostics, vaccine and drug development, pharmacology, and bioengineer/biomedical engineering.
- **(D) Other Cancer Research:** All scientific fields supported by the NCI that are not included in (A), (B) or (C). Applicants proposing research in (D) "Other Cancer Research" may apply only if it is reasonable to expect them to transition to independence with an abbreviated period of mentored research training beyond their original doctoral degrees.

Portfolio Analysis of the pilot “early” K99/R00 RFA

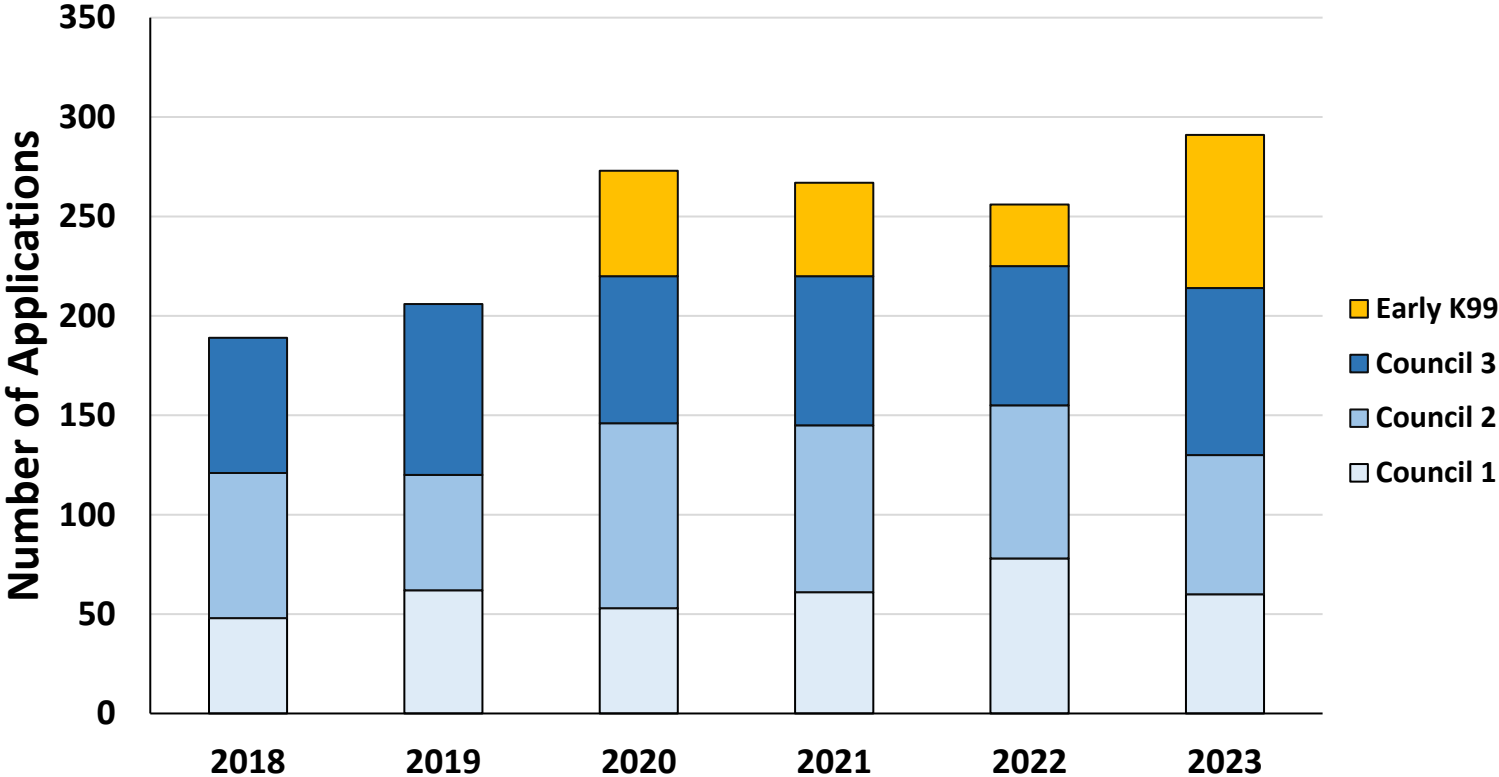
Pilot NCI Early K99/R00 RFA: Applications and Awards (FY2020-2023)



Pilot NCI Early K99/R00 RFA: Applications and Awards by Field of Science (FY 2020-2023)



Pilot NCI Early K99 vs. Parent K99 applications (FY 2018-2023)



Summary

- Propose a dual-phase transition award for outstanding early-stage postdocs with ≤ 2 years of postdoctoral research experience
- Candidate must be nominated by applicant institution. Institution may nominate up to 4 candidates per review cycle: (i) one in Cancer Data Science, (ii) one in Cancer Control Science, (iii) one in Molecular/Precision Cancer Prevention, and (iv) one in Other Cancer Research
- U.S. citizenship or permanent residency not required - Individuals on U.S. visas are eligible to apply
- Review conducted separately from parent K99/R00 applications
- Standard application due dates apply



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