

The NCI Predoctoral to Postdoctoral Fellow Transition Award (RFA: F99/K00)

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Outline

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Background

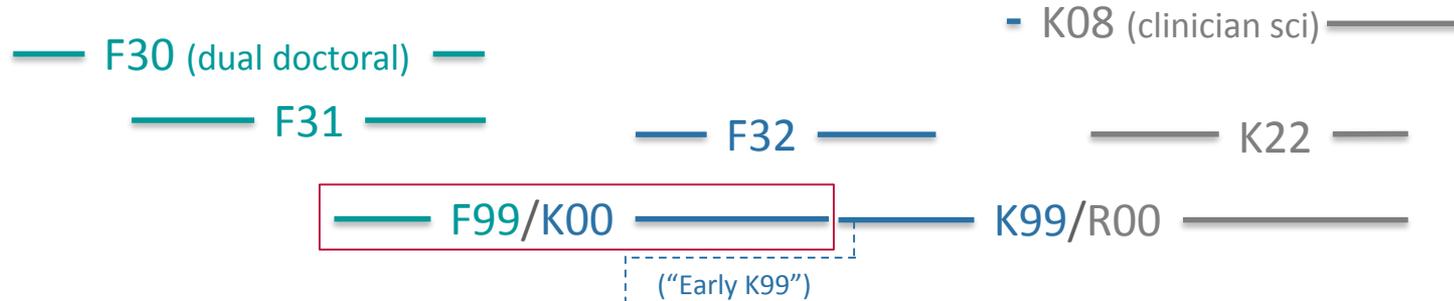
- Mismatch between # of trainees and # of independent investigator positions
 - Doubling of students receiving doctorates / ~30y
 - Tripling in postdoctoral fellows / ~30y
 - Independent Investigator positions not increasing
- Average age of PhD PIs at 1st R01 is 43
- Bright individuals opting for careers outside academic research

Objectives

- Show that a cancer research career is rewarding, valuable, and viable
- Identify the best and brightest and
 - Engage and retain them in cancer research community
 - Facilitate their joining top laboratories of their choice in the cancer field
 - Position trainees for a K99/R00 award

Establish transition award for late-stage graduate students
to transition to postdoctoral studies

F99/K00 Award Elements



Predoctoral

Postdoctoral

Early Stage PI

F99/K00 Predoctoral to Postdoctoral Fellow Transition Award

- 1 application per institution per year
- Support for up to two years of predoctoral work and up to four years of postdoctoral training (Total: up to 6 years)
- K00 salary levels exceed current NRSA stipends
- Portable and allows flexibility in selecting postdoctoral training opportunities

Review

- F99 application (Predoc Phase):
 - Quality of applicant, academic and publication record
 - Recommendation letters
 - Brief update on accomplishments
 - Description of research leading to degree
 - Mentor to hold R01-equivalent grant
- F99 to K00 transition (Postdoc Phase):
 - Proposal includes:
 - Proposed mentor's support
 - Short research description for postdoc training
 - Mentor to hold R01-equivalent grant
 - Approval at discretion of NCI Program Director

Planned Program Evaluation

- **Quantitative metrics**
- Qualitative data
 - Surveys & In-depth Interviews:
 - participants, graduate student advisors, and postdoc mentors
 - Productivity measures:
 - professional activities, SciENCv, career development activities, awards and recognition, leadership roles
- Team of external educators

Short-Term

- PhD completion
- Transition to K00
- Postdoc in cancer research / at NCI-Designated CC / NCI intramural program
- Scientific productivity

Mid-Term

- K99 application rate and success
- R00 transition rate

Long-Term

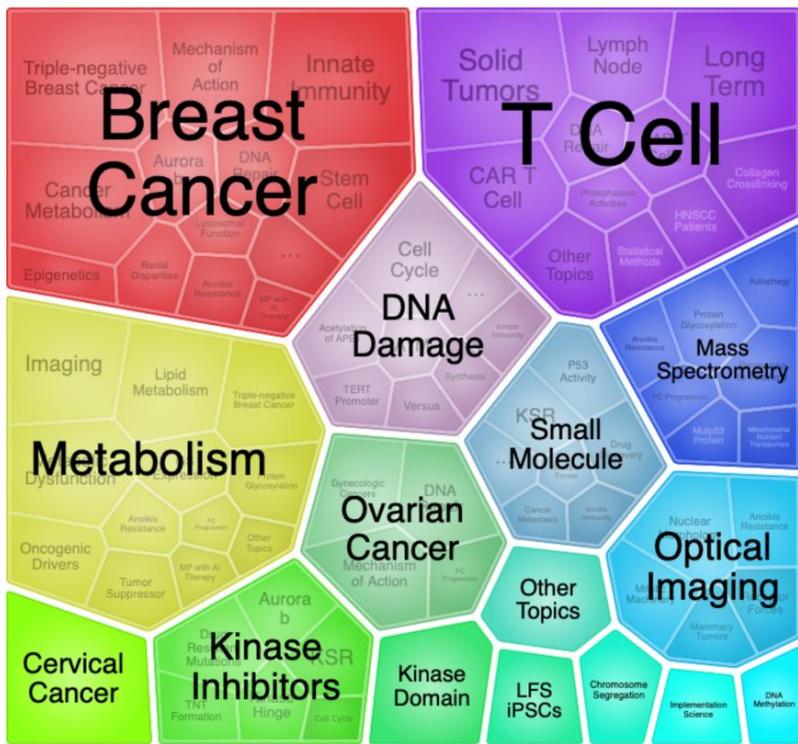
- First RPG application success rate
- Age at first R01-equivalent award
- Time to tenure

Current Portfolio

	Cohort 1 (FY2016)	Cohort 2 (FY2017)	Cohort 3 (FY2018)	Cohort 4 (FY2019)	Total for 4 Cohorts
Total number of applications	76	93	79	70	318
Total number of awards	36	27	23	26	112
Success rate	47%	29%	29%	37%	35%

	Cohort 1 (FY2016)	Cohort 2 (FY2017)	Cohort 3 (FY2018)	Cohort 4 (FY2019)	Total for 4 Cohorts
Earned Ph.D.	100%	100%	Too early to judge	No graduations yet	
Total number transitioned from F99 to K00	33	24	5	No transitions yet	62
Percentage transitioned from F99 to K00	91%	88%	Too early to judge	No transitions yet	
K00 in Cancer Centers	27	21	3	No transitions yet	51
K00 not in Cancer Centers	6	3	2	No transitions yet	11
K00 in NCI intramural program	0	0	0	0	0
K99/R00 application rates	1/33 transitions	2/24 transitions	Too early to apply for K99	Too early to apply for K99	3/62 total transitions

Current Portfolio



	Cohort 1 (FY2016)	Cohort 2 (FY2017)	Cohort 3 (FY2018)	Cohort 4 (FY2019)	Total for 4 Cohorts
K99/R00 application outcomes	1 pending IRG review	1 award declined; 1 pending IRG review	Too early to apply for K99	Too early to apply for K99	
F99 phase not in cancer research	0	2	3	0	5
Total publications	120	70	34	2	226
F99 awardees with previous F31 fellowship	5	4	4	5	18
U.S. citizen, noncitizen national, or permanent resident	30	19	13	20	82
Temporary U.S. Visa	6	8	10	6	30

Justification for an RFA

- Notifies extramural community of intended size and scope
- Demonstrates NCI's commitment to early career development
- Special review criteria and a special review panel
- Wide range of expertise required to review responsive proposals
- Reviewers familiar with training awards required

Propose:

- 24 awards per year
- one receipt date per year for five years

Total cost per cohort:
\$11M

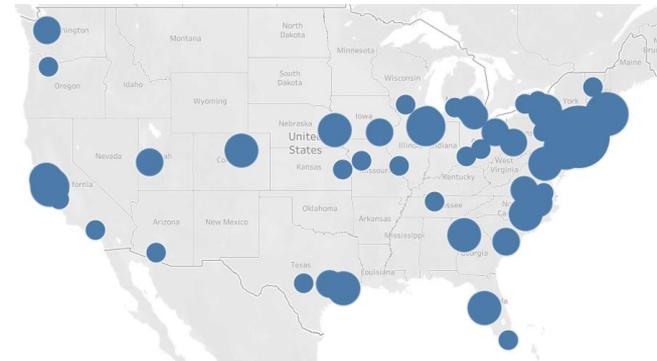
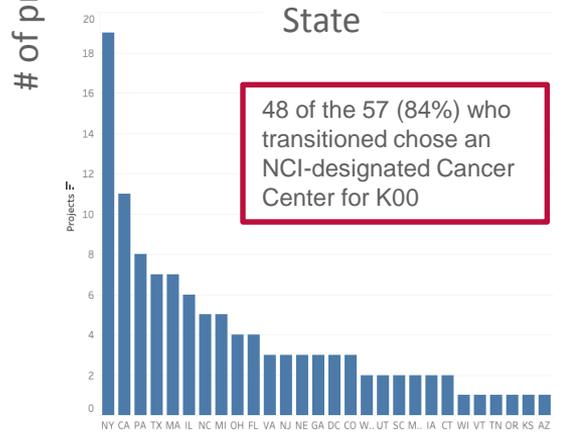
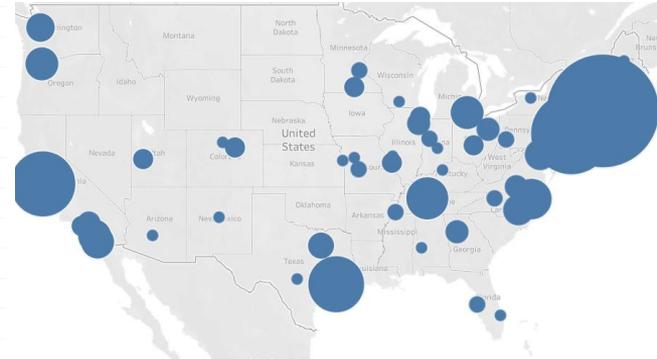
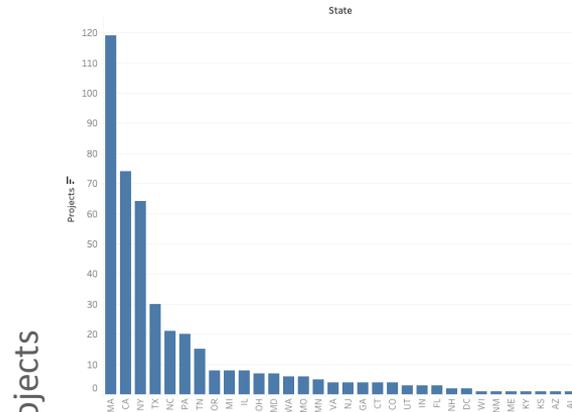
RFA: 1 app/institution evens geographic spread

K99/R00

- 444 awards spread over
 - 65 congressional districts
 - 100 institutions
- Top 3 districts have 39% of awards (MA-07, NY-12, CA-18; 174)
- Top 4 institutions got 33, 31, 30 and 26 awards (combined 27%)

F99/K00

- 112 awards spread over
 - 54 congressional districts
 - 68 institutions
- Top 3 districts have 18% of awards (NY-12, MA-05, PA-03; 20)
- Institutions: 4 got 4 awards (combined 14%); 8 got 3; 16 got 2 and 40 got 1



Budget Proposal

F99	Year 1	Year2	Total cost for F99 over 2 years
Stipend	\$25,320	\$25,320	
Institutional Allowance	\$4,200	\$4,200	
Travel to annual meeting	\$1,500		
Tuition	\$16,000	\$16,000	
Fringe & benefits	0	0	
Total per single F99	\$47,020	\$45,520	
Indirect cost	Included in Institutional allowance	Included in Institutional allowance	
X 24	\$1,128,480	\$1,092,480	\$2,220,960

K00	Year3	Year 4	Year5	Year 6	Total cost for K00 over 4 years
Salary	\$60,000	\$63,300	\$66,600	\$69,900	
Institutional Allowance	\$3,000	\$3,000	\$3,000	\$3,000	
Travel to annual meeting	\$1,500				
Tuition	\$4,500	\$4,500	\$4,500	\$4,500	
Fringe & benefits	\$11,850	\$11,850	\$11,850	\$11,850	
Direct cost per single K00	\$80,850	\$82,650	\$85,950	\$89,250	
Indirect cost: 8% of modified total DC (\$76,350)	\$6,108	\$6,252	\$6,516	\$6,780	
Total cost per K00	\$86,958	\$88,902	\$92,466	\$96,030	
X 24 transitions in year 3	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720	\$8,744,544

Total cost per cohort: \$11M

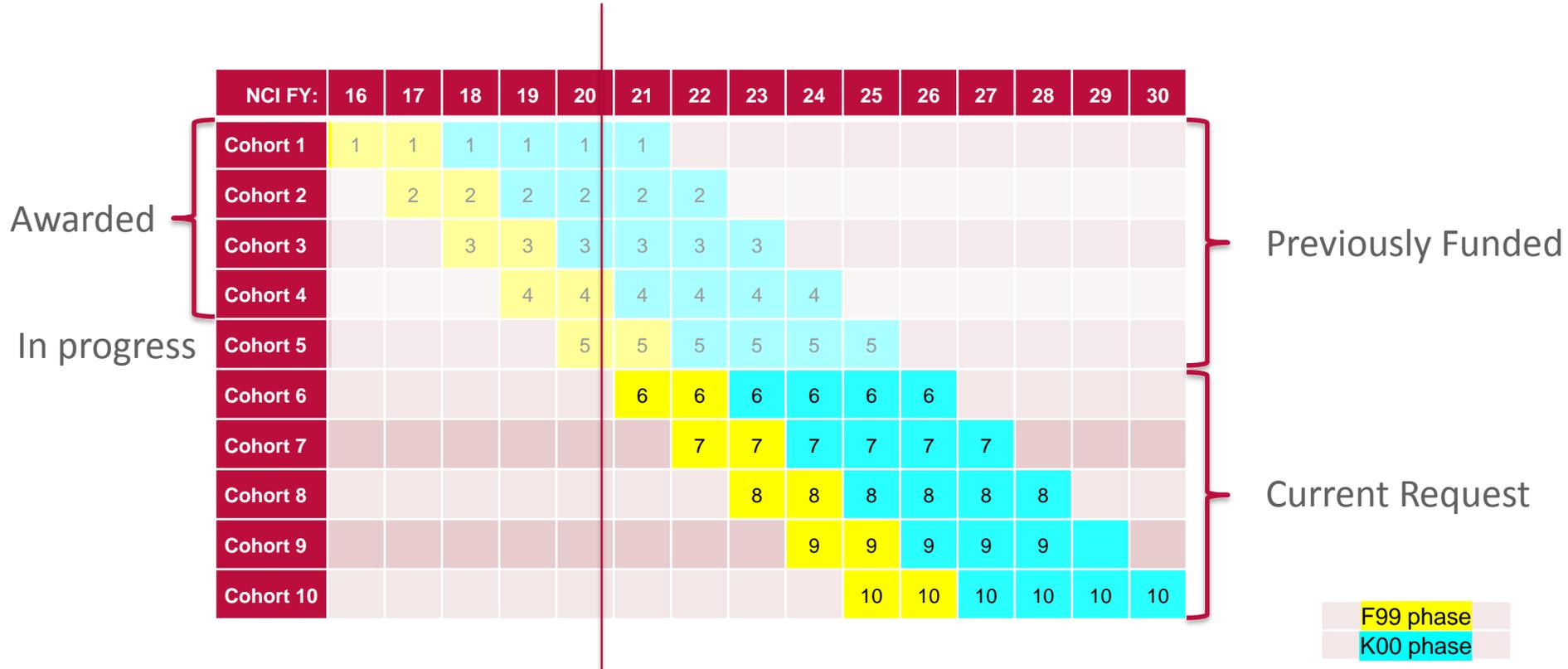
Budget Proposal

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Cohort 6	\$1,128,480	\$1,092,480	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720					\$10,965,504
Cohort 7		\$1,128,480	\$1,092,480	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720				\$10,965,504
Cohort 8			\$1,128,480	\$1,092,480	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720			\$10,965,504
Cohort 9				\$1,128,480	\$1,092,480	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720		\$10,965,504
Cohort 10					\$1,128,480	\$1,092,480	\$2,086,992	\$2,133,648	\$2,219,184	\$2,304,720	\$10,965,504
Total per year	\$1,128,480	\$2,220,960	\$4,307,952	\$6,441,600	\$8,660,784	\$9,837,024	\$8,744,544	\$6,657,552	\$4,523,904	\$2,304,720	\$54,827,520

F99 phase

K00 phase

Cohort Structure





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