Grant Writing

NIH, K Awards, the K-to-R transition

CFAR Mentoring Workshop
March 15, 2024

Agenda

- Overall funding opportunities for postdoctoral fellows at NIH and other agencies
- Data on K awards (and other career tracks) in the UCSF ID fellowship for the past 10 years
- Tips, timing and resources for writing a K award and transitioning to an R award – R21s, RO3s
- (Process to write a K or other career development grant at the three hospitals/Divisions for ID fellows)

Types of Mentored Career Development Awards

- Postdocs generally supported on F32 awards and T32 awards from the NIH
- After the T32, there are NIH and non-NIH career development awards
- **NIH:**
  - Career development awards at the NIH are mentored and are pathway to independence (usually represented by an R01 award)
  - Most of the K awards support individuals *after* they have completed training and are transitioning to a faculty position
- **Non-NIH:** Other funding agencies have mentored career development awards

Key Features of Mentored K Awards

- 3 – 5 years in length
- Provide substantial salary support but limited research funding.
- Contain both a training plan *and* a research plan.
- Includes a team of mentors, co-mentors, advisors, etc.
- Goal: transition to research "independence".

Types of Mentored Career Development Awards

- **K08: Mentored Clinical Scientist Research Career Development Award:**
  - Development of the independent clinical research scientist
  - Mainly for MDs planning basic science research career– not patient-oriented research
- **K23: Mentored Patient-Oriented Research Career Development Award:**
  - Development of the independent research scientist in a clinical arena
  - Clinician interacting directly with patients for your research
- By the time of award, the PD/PI (Career Candidate) must be a U.S. citizen or permanent resident, must have a health-professional doctoral degree, and must have completed their clinical training and specialty training
- **K01: Mentored Research Career Development Award**
  - Generally for PhDs or non-board eligible MDs

Beyond the K23/K08 route, institutions (including UCSF) have K12 awards

- **K12: Mentored Clinical Scientist Development Program Award:**
  - Support for an institution for the development of independent clinical scientists in a certain field
  - Applicant (e.g. ID fellow) does not directly apply to the NIH, apply to the K12 committee
  - Two K12 programs most relevant to ID fellows

BIRCWH Building Interdisciplinary Research Careers in Women's Health

CTSI K Scholar Program Call for Applications

UCSF has other K12 award programs

Sub #	Project Title	Contact PI/ Project Leader	Link to UCSF progarm
K12 HD052163	UCSF-KAISER DEPARTMENT OF RESEARCH BUILDING INTERDISCIPLINARY RESEARCH CAREERS IN WOMEN'S HEALTH (BIRCWH) PROGRAM	BRINDIS, CLAIRE D. Adler NANCY	https://bircwh.ucsf.edu/ (Had a competition for scholars starting in 2023, probably not open for another couple of years)
K12 HS026383	UCSF LEARNING HEALTH SYSTEM K12 CAREER DEVELOPMENT PROGRAM	GONZALES, RALPH Sarkar, Urmimala	https://epibiostat.ucsf.edu/leap-k12-career-development-program (Funded by AHRQ, Not currently accepting applications – waiting on renewal)
K12 DK111028	UCSF-KAISER UROLOGICAL EPIDEMIOLOGY RESEARCH CAREER DEVELOPMENT PROGRAM	HUANG, ALISON Van den Eeden, Stephen	https://urology.ucsf.edu/node/3406 (Currently recruiting scholars, STDs included if investigating the urological consequences)
K12 HL143961	UCSF CAREER DEVELOPMENT PROGRAM IN CARDIOPULMONARY, HEMATOLOGIC, AND IMMUNOLOGIC COMORBIDITIES OF HIV (CHIC)	HUANG, LAURENCE Hsue, Priscilla	https://k12chic.ucsf.edu/cardiopulmonary-hematologic-and-immunologic-comorbidities-chic-hiv (5th year was in 2022, unclear if renewed or currently recruiting
K12 GM081266	UCSF IRACDA SCHOLARS PROGRAM	INGRAHAM, HOLLY A. Esquerra, Raymond	https://iracda.ucsf.edu/ (Applications for 2024 will open in December) Program is for early postdocs who want to learn teaching skills at SFSU and research mentoring skills at UCSF
K12 HD001262	WOMEN'S REPRODUCTIVE HEALTH RESEARCH	Jackson, Rebecca	https://obgyn.ucsf.edu/education-training/wrhr (For OB/GYNs, not currently accepting applications)
K12 EY031372	UCSF-PROCTOR CLINICIAN VISION SCHOLARS K12 PROGRAM	OU, YVONNE Lietman, Thomas	https://ophthalmology.ucsf.edu/k12-program/ (Vision science research, looks like currently accepting applications)
KL2	KL2 Scholars Program		https://epibiostat.ucsf.edu/kl2-scholars-program-0 (unclear if they'll be open for slots this year -application historically due in January)
5 K12 CA260225 03	**UCSF Paul Calabresi K12 Career Development Program in Clinical Oncology**	BERGSLAND, EMILY K BIVONA, TREVER G	https://cancer.ucsf.edu/education/K12-program Applications due 12/1, for patient-facing clinical-translational cancer research
K12 HD105250	**The Child Health Research Career Development Program at UCSF**	Hirsch, Raphael	Couldn't find a website

Other Types of NIH Mentored Career Development Awards

- **K99/R00: NIH Pathway to Independence (PI) Award:**
  - Provides an opportunity for promising *post-doctoral* scientists to receive both mentored and independent research support from the same award.
  - **Can be resident (need not be US citizen)**
  - The PD/PI (Career Candidate) must have a researh or health professional doctoral degree, with no more than 4 years of postdoctoral research experience at the time of the initial or the subsequent resubmission or revision application.
  - Kangaroo award

On your way to a K application – RAP awards (either HIV through CFAR or not HIV- look at topics)

Mentored Scientist Award Program in HIV/AIDS

Project Award Amount $50,000

Description

The **UCSF-Bay Area CFAR Mentored Scientist Award** is a mentoring and training grant targeted toward early stage (either at a senior stage of clinical or postdoctoral training or junior faculty) investigators at UCSF or affiliated partner institutes in the conduct of a research project. Th are typically used to acquire preliminary data and research skills leading toward a future gr Applicants for this award must indicate a faculty research mentor(s) who will commit to guic applicant throughout the duration of the proposed project.

UCSF-BAY AREA CFAR CENTER FOR AIDS RESEARCH

Spring 2023 Highlights

- **Overall Funding Rate: 45%**; **119** applications reviewed; **53** awards (four co-funded) for **$2,525,796**. Spring 2023 cycle data and funding by grant mechanism can be found at Spring 2023 Statistics.
- **Pilot for Anti-Racism Research Awardees**:
  Johanna Folk, PhD (Dept.of Psychiatry) awarded by the Academic Senate
  Ryutaro Hirose, MD (Dept.of Surgery) awarded by the CTSI Pilot Awards
  Rachel Willard, MPH, MS (Dept. of Family & Community Medicine) awarded by REAC
- **RDO/RAP Diversity Supplement Awardees**:
  Matthew Durstenfeld, MD (Dept. of Medicine) awarded by REAC
  Alison Huang, MD (Dept. of Medicine) awarded by MZHF
  Karly Murphy, MD, MHS (Dept. of Medicine) awarded by CTSI Pilot Awards
  Joyce So, MD, PhD (Dept. of Pediatrics) awarded by MZHF
  Sharad Wadhwani, MD, MPH (Dept. of Pediatrics) awarded by REAC

Non-K grants to think about along the way

* really good opportunities to practice grant writing, develop ideas, show "productivity"

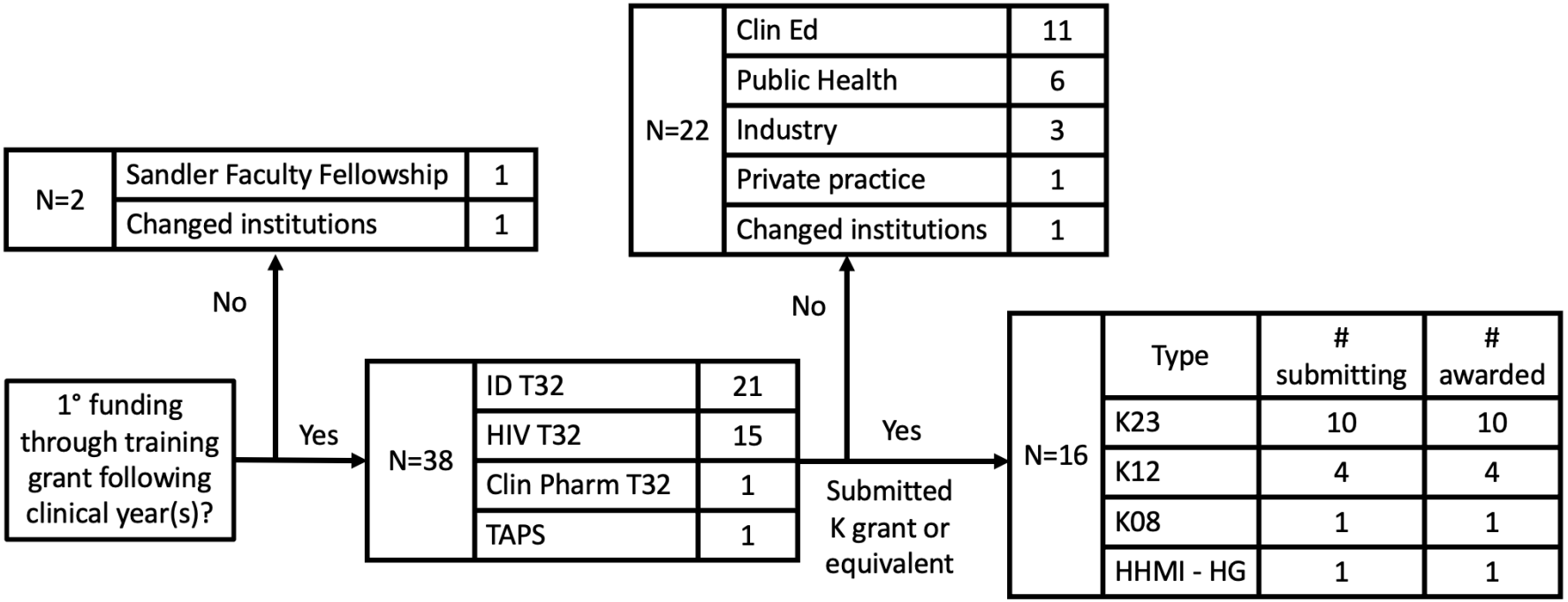
NOT offered in 2024: Doris Duke CAMS, Doris Duke Physician Scientist Training programs, Biohub physician-scientist fellowship

Sponsor	$ / duration	Timing	Basic	Translational	Clinical	Deadline
UCSF RAP grants*	varies (most 1y, ~50k)	varies	x	x	x	Fall, Spring
UCSF Nina Ireland Program for **Lung** Health	$50k/yr x 1-2y	3rd yr fellow → assistant prof	x	x	x	Oct 13
UCSF Physician Scientist Scholar Program (PSSP)	$1.25M/5y	Advanced postdoc/transition to faculty (requires nomination)	x			
AP Gianni	60-64k towards salary/yr x3y	3m-3y as postdoc	x	?x		Dec 31
Hannah Gray	100k/yr (postdoc, 2-4y); 270k/yr (faculty, up to 4y)	<24m postdoc	x			February
Burroughs Welcome Foundation Career Awards for Medical Scientists (CAMS)	$700k/5y	Advanced postdoc/transition to faculty	x	x		Oct 17
IDSA list of grants, includes links to: - ARLG - NIH new innovator award (DP2)	varies	varies	x	x	x	varies
ATS – pulm-related grants	varies	varies	x	x	x	varies
RRF – rheum-related grants	Varies	Varies	x	x	x	varies

Agenda

- Overall funding opportunities for ID fellows at NIH and other agencies
- Data on K awards (and other career tracks) in the UCSF ID fellowship for the past 10 years
- Tips, timing and resources for writing a K award
- (ID fellows) - Process to write a K or other career development grant at the three hospitals/Divisions

Pathways for ID Fellows (Research Track) 2012-20 (n=40)



Additional details on K grant or equivalent submissions (n=16)

Type	N	Months from start of 2nd year to 1st submission		
		≤ 12	13-24	25-36
Total	**16**	**1**	**8**	**7**
K23	10	0	6	4
K12	4	1	1	2
K08	1	0	0	1
HHMI - HG	1	0	1	0

Type	N	Number of submissions before funding awarded		
		1	2	3
Total	**16**	**12**	**2**	**2**
K23	10	6	2	2
K12	4	4	0	0
K08	1	1	0	0
HHMI - HG	1	1	0	0

Type	N	Months from start of 2nd year to when funding began				
		≤ 12	13-24	25-36	37-48	> 48
Total	**16**	**1**	**2**	**8**	**3**	**2**
K23	10	0	1	6	1	2
K12	4	1	1	1	1	0
K08	1	0	0	0	1	0
HHMI - HG	1	0	0	1	0	0

K12 grant awardees (n=4)	
Type	BRICWH =2 CHIC =1 Omics of lung disease = 1
Next step	Received K23 = 2 Plan to submit K23 = 2

Agenda

- Overall funding opportunities for ID fellows at NIH and other agencies
- Data on K awards (and other career tracks) in the UCSF ID fellowship for the past 10 years
- Tips, timing and resources for writing grants
- Process to write a K or other career development grant at the three hospitals/Divisions

General Tips on Mentored K Awards

- Understand the *intent* of the mentored K award.
  - To help promising new investigators achieve research <u>independence</u> (i.e., to compete successfully for *R01 funding*).
  - Therefore, preparing for the R01 grant application you will submit at the end of the K award should be the *organizing principle* of the K grant application.

General Tips on Mentored K Awards (cont'd)

- Make a compelling argument why you need a K award
  - Explain exactly how additional training and mentored research experience will enable you to compete successfully for R01 funding.
  - Be specific: give concrete examples of areas where you need additional training or experience in order to conduct the proposed research or areas where you are deficient that are directly related to your research career goals.

General Tips on Mentored K Awards (cont'd)

- Develop a career development training plan that is *uniquely* suited to you.
  - Given your previous training and research experience, and your short- and long-term career goals, propose a mix of didactic training and "hands- on" research experience that make perfect sense for you (and only you).
  - Degree-granting programs (e.g., MPH, MAS) are appropriate for candidates with little or no previous formal training in research, but even these programs should be "customized" whenever possible.

Research plan

- **General format:**
  - Significance aims page (1)
  - Significance
  - Innovation
  - Approach
    - Preliminary Studies
    - Research design and methods
  - (Protection of Human Subjects, Inclusion of Women and Minorities, Inclusion of Children)
  - References (unlimited)

More tips

- **The unit of currency as you apply is publications**
  - This isn't changing
  - No new currency in the works
  - Try to have a theme built up in your publications ("developing a niche")

  - Try not to have the same mentor as last author every time ("beginning of independence")
  - Few quality publications (higher impact journals, solid demonstration of an important finding) better than quantity

More Tips

- **Start early on your application and clear decks**
  - Try to give *at least* 3 months
  - Contact your RSA early to get a timeline of when documents are due
  - Cancel standing meetings, don't meet with students, clear clinical obligations, only keep necessary balls in air
  - Work in your best location (holed up, café, library, etc.)
  - Identify your 3-4 internal reviewers early (NOT MORE), email them ahead of time with stated commitment of when draft will arrive and when you need comments
  - Look at study section roster of your intended study section – ***use their references if possible***

More Tips

- **Grantsmanship means a lot**
  - Don't crowd page with words, have white space, clear language
  - Use indentations, boxes (pull-out with key points)
  - Can use some color- box your aims, color figures/tables
  - Use Figures/Tables that are clean, easy to read
  - Bold key points (not too much)
  - Don't start with "HIV affects 39 million people worldwide" – reviewers know that, hone in on your problem
  - Don't hit reviewer over head with preliminary studies or summarizing literature- key points and heavily use references
  - Tell a story of innovation

research priority for wide-scale HIV biomedical prevention trials and implementation efforts.[50]

3A2a. Examples from HIV prevention trials where low adherence may have "flattened" results, over-reporting of adherence was common, and an objective biomarker of adherence proved it: Recent data from HIV prevention trials have demonstrated that traditionally-used measures of adherence perform poorly, highlighting the importance of biomarkers of adherence. **Table 1** summarizes recent examples from HIV prevention trials where adherence was over-reported using "traditional" measures such as self-report or pill counts, compared to data from more objective markers.[1,33,35,53] **The iPrEx trial provides an example where low adherence to study product blunted efficacy estimates considerably.**[1] In this trial, although mean adherence by self-report or pill counts was 95% in the group assigned TFV/FTC, adherence assessed by drug detection in peripheral blood mononuclear cells (PBMCs) was found to be only 8% in those who seroconverted and 54% in those who remained uninfected.

Table 1: HIV Prevention RCTs where Including Objective Biomarkers of Adherence Radically Changed Outcomes

Trial	Reference	Adherence as assessed by "traditional measure" in active arm	Adherence as assessed by objective biomarker	Likely effect of low adherence to product	Limitations of objective biomarker used (Table 2)
Global iPrEx (oral PrEP, MSM)	Grant. NEJM 2010[1]	89-95% by self-report or pill-counts	<50% by PMBC data (8% adherence or drug detectable in those who seroconverted; 54% in those who did not)	"Blunted" efficacy results (from 92% to 44%)	PBMCs expensive, cumbersome to collect; plasma levels reflect only recent use
MTN-001 study (vaginal and oral PrEP, women)	Hendrix. CROI 2011[59]	94% by self-report	35-65% by PK measures (PBMC, vaginal tissue concentrations)	NA (phase II, not an efficacy trial)	PBMCs expensive, cumbersome
Carraguard microbicide (vaginal gel, women)	Skoler-Karpoff. Lancet 2008[44]	96.2% by self-report	41.1% by applicator testing (staining assay to see if applicators had been vaginally inserted)	No efficacy demonstrated	Staining assay complicated and relies on return of applicators
Acyclovir for HSV to prevent HIV (female HSV-2+ workers)	Watson-Jones. NEJM 2008[42]	90% by self-report or pill counts	33-67% by testing of urine samples for acyclovir detection	No efficacy demonstrated	Urine difficult to collect and store (higher volumes)
FEM-PrEP (oral PrEP, women)	4/18/11- FHI Statement[12]	95% by self-report or pill counts	Analyses of plasma ARV levels underway	To be determined	Pills subject to decanting before counts; plasma levels only recent use

Non-human primate data demonstrate very high efficacy of daily TFV/FTC for PrEP.[58,59] Low adherence to study product in human trials of PrEP will obviously flatten efficacy results. The FEM-PrEP RCT, designed to assess the efficacy of TFV/FTC in African women for PrEP, was terminated early (on April 18, 2011) after interim analysis showed equal rates of infection in each group.[5] **Although data are not yet available on the reasons for these interim FEM-PrEP results, nullification of efficacy by low adherence to study product is hypothesized and under investigation.** Indeed, high rates of pregnancy in those self-reporting oral contraceptive methods in FEM-PrEP allude to possible adherence limitations in the trial. Finally, a recent presentation from MTN-001, a large multinational phase II pharmacokinetics and

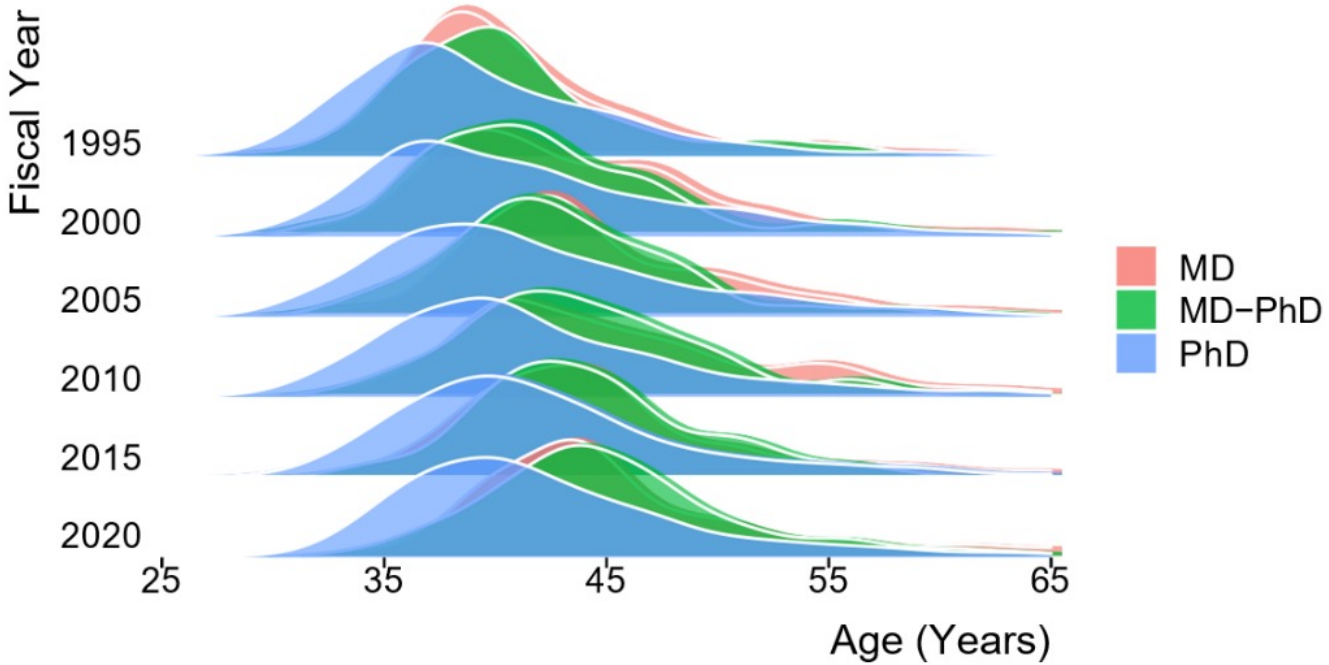
If you are not awarded the first time…

- Like in a manuscript review, if you are **very responsive, point-by-point,** HIGH CHANCES of getting funded the next time
- Ask the program officer for hints (may have been in review, will know program priorities for funding)
- Frame respectful point-by-point addressing of each question raised by the review
- Try to resubmit to same study section; going new may not help and at least you are responding to comments

Timing and resources

- Can only have 3 years on a T32 total (36 months) per the NIH
- To give "two application" rule a chance, we encourage submission of a K equivalent award at the latest by May (HIV) or June (non-HIV) of your 2nd year on a T32
- NIH deadlines for HIV grants: September 7, January 7, May 7
- NIH deadlines for non-HIV grants: October 7, February 7, June 7 (reviewed more slowly)
- HIV "carveout" at the NIH
- PREPARE and CAPS both have peer and senior review programs to review your K ahead of time

Degree-based distributions by fiscal year of age of PI receiving support on NIH R01 for first time – November 2021



NIH. Office of Extramural Research. Nov 2021

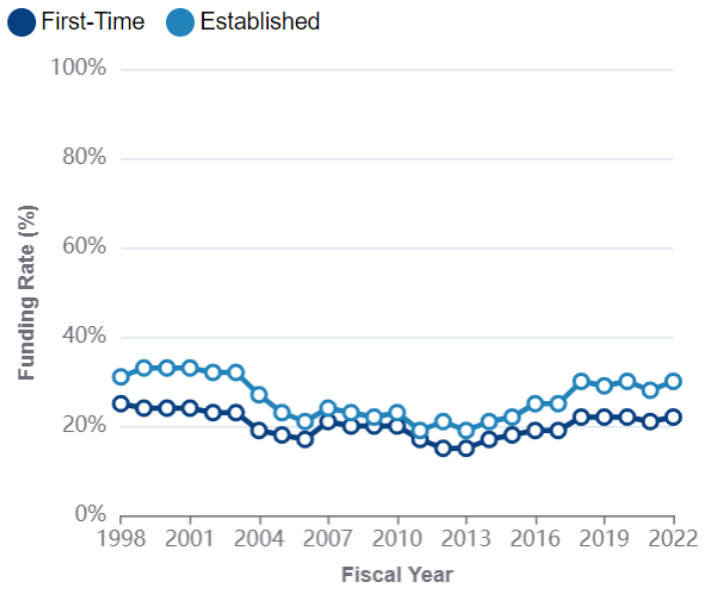
Number of applications going up to NIH- now at 39.6% funding rate

NIH. Office of Extramural Research. May 2022

R01-Equivalent Investigators, New (Type 1): Funding Rates, by Career Stage of Investigator

NIH Data Book Report ID: 166 Share

Data Export



FY 2009 and 2010 exclude awards made under the American Recovery and Reinvestment Act of 2009 (ARRA) and all ARRA solicited applications and awards.

- First time: 22%
- Established: 30%

Polarization -moment in time (will get better)

National Institutes of Health
Budget Comparison by Institute/Center
(Dollars in Thousands)

IC	FY 2023 Enacted	FY 2024 House Committee	Percent Change	FY 2024 Senate Committee	Percent Change
NCI	$ 7,320,159	$ 7,104,159	-3.0%	$ 7,380,159	0.8%
NIAID	6,562,279	5,062,279	-22.9%	6,562,279	0.0%
NHLBI	3,982,345	3,982,345	0.0%	3,982,345	0.0%
NHGRI	663,200	663,200	0.0%	663,200	0.0%
NCATS	923,323	923,323	0.0%	923,323	0.0%
NIGMS	3,239,679	3,154,679	-2.6%	3,239,679	0.0%
NIA	4,407,623	4,407,623	0.0%	4,509,623	2.3%
NIDA	1,662,695	1,662,695	0.0%	1,672,695	0.6%
Other ICs	15,497,668	15,070,183	-2.8%	15,512,218	0.1%
Subtotal	$ 44,258,971	$ 42,030,486	-5.0%	$ 44,445,521	0.4%

NIAID FY 2024 Interim Financial Management Plan

- **R01 Payline:**
  - Established PI: 8th percentile
  - New PI: 12th percentile
- **Non-Competing and Competing Grants: No adjustments**
- **Competing Research Initiatives: Cut up to 30%**
- **Estimated Success Rates: 13-16%**

New Online | Views 3,762 | Citations 0 | Altmetric 16

Viewpoint

ONLINE FIRST

September 14, 2023

PEPFAR Reauthorization by Congress Urgent for Global Health

Monica Gandhi, MD, MPH[1]; Eric Goosby, MD[2]

However, NIH encouraging early investigators

- Payline for K awards at NIAID is 20 (although NIAID notes # of K applications down 50% from 2019)
- Early Stage Investigator program initiated 2009 (your have to be within 10 years of your terminal degree in PhD or within 10 years of post-graduate clinical training if MD e.g. fellowship), higher paylines for ESIs (NIAID now..)
- Can extend ESI status: family care responsibilities, extended periods of clinical training, extended periods of additional didactic instruction, disability, illness, active duty military, loan repayment, natural disasters or comparable disruptive factors, COVID (usual 24 mo, can go to 120 mo.)

NIH New Investigator Policies:
https://grants.nih.gov/faqs#/early-investigators.htm?anchor=question55019

R03 grants

- **R03**: Small Grant
- **Definition:** Supports small projects that can be carried out in a short period of time with limited resources.
- **Funding:** Up to $100K in direct costs for 2 years ($50K/year)
- **Appropriate projects**
  - Pilot or feasibility studies
  - Secondary analysis of existing data
  - Small, self-contained research projects
  - Easier to get (6 page application)
  - Development of research methodology or new research technology

R21 grants

- **R21**: Exploratory/Developmental Grant
- Provides support for the early or conceptual stages of development.
- Funding: Up to $275K in direct costs over 2 years.
- Appropriate projects**:** Should address the feasibility of a *novel area of investigation* or *a new experimental system* that has the potential to enhance health-related research.
  - The NIH parent announcement describes this research as "*High Risk – High Impact*." (6 page application)
  - However, some Institute-specific program announcements may not emphasize this requirement.
- **Warning!** Not all NIH institutes support R21s!

K study section criteria for review

- **Candidate**
  - Potential to develop as an independent/productive investigator
  - Research training experience, i.e. high quality research record, publications – preferably first-author
- **Career Development/Development Plan/Career Goals/Mentoring Plan**
  - Training Goals, logical phasing and duration
  - Plans for monitoring and evaluating candidate's research/career development progress
- **Research Plan**
  - Proposed research has scientific and technical merit; will lead to independence
  - Prior research serves as support for proposed project; Addresses sex as a biological variable
- **Mentors**
  - Clear plan for mentoring, evidence of mentor research productivity and peer-reviewed support
  - Experience in fostering development of mentees to independence
- **Environment**
  - Clear commitment of sponsoring institution to support 75% time for K research
  - Assurance that institution intends candidate to be integral part of research programs as independent investigator.

SLIDES FROM NIH ON DIVERSITY SUPPLEMENTS

Contact Program Officers when applying for NIH funding

- Contact the Program Officer **early** in the process
  - Send **biosketch** and **specific aims** page
  - Helpful to determine **eligibility** and **responsiveness** of proposal to IC's mission

- Reach out after summary statement is released to discuss possibility for funding

Research Supplements to Promote Diversity

- Administrative supplements to existing NIH research grants (e.g., R,P,U) - high school to faculty level
- Supplements provide salary and fringe benefits; funds for supplies and travel
- Sets up mentoring relationships with **individual development plans**
- Typically **1-3 years** of funding to allow the supplement awardee to gain the research experience, preliminary data, and other requirements to develop an application for other avenues of NIH funding.
- Feeder program for our Diversity Fs and Ks

IC Specific Contacts and Information

Opportunities to Pursue Your Own Funding

Predoctoral Individual Fellowship

F31 (Ph.D.)

F30 (MD/PhD)

Predoctoral to Postdoctoral Transition Award

F99/K00

Postdoctoral Individual Fellowship

F32 – Provides up to three years of support for mentored postdoctoral training

Career Development Awards - K

Pathway to Independence Award
K99/R00 –

- 2 years of mentored postdoctoral research (K99)
- 3 years of independent funding (R00)

NIH National Institutes of Health

NIH Supported Training at Institutions

Ruth L. Kirschstein Institutional National Research Service Award (T32)

- NIH supports ~1800 projects that enable over 200 institutions nationwide to recruit and support predoctoral and postdoctoral scientists and provide structured training in a various biomedical disciplines

Institutional Career Development Program Award (K12)

- Prepare postdoctoral and clinician scientists for independent research careers

NIH National Institutes of Health

Scientific Workforce Diversity - Guidance

- **Why Diversity Matters to NIH** – Dr. Le Fauve
- **How Do You Start ? Overview of Training Opportunities** – Dr. Gibbs
- **How Do You Continue? Focus on Transition Awards and Early Faculty –** Dr. Jones-London
- **Mentorship for All Career Stages** – Dr. Rivers

NIH National Institutes of Health

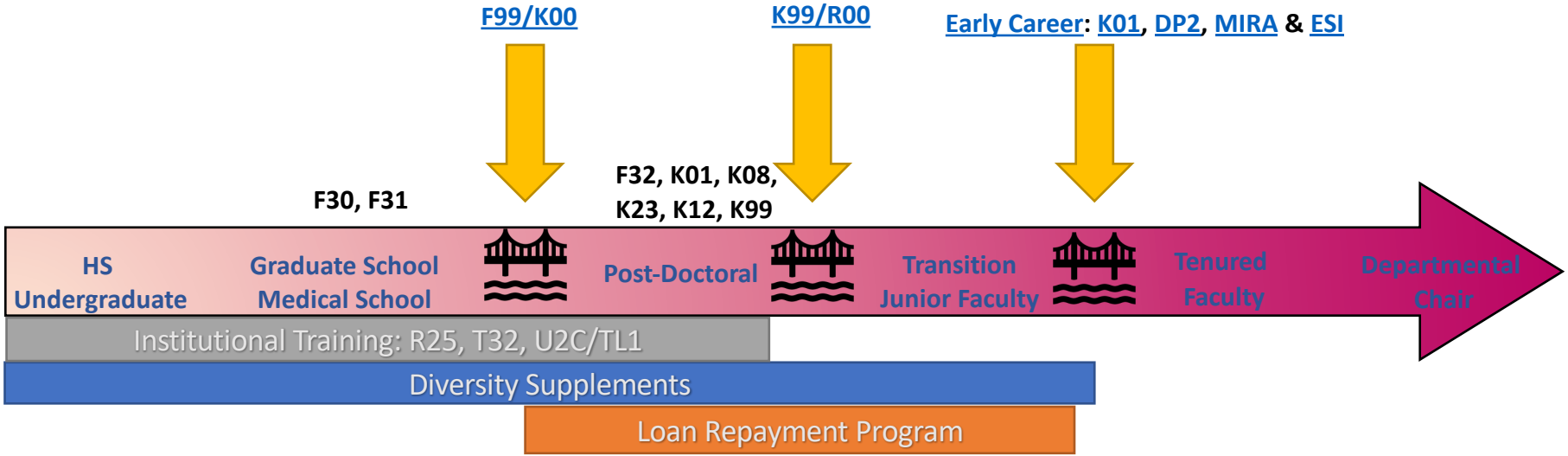
Transition Awards

- The current research environment is often perceived as very challenging (e.g., Developing a 21st Century Neuroscience Workforce, IOM).
  - Attrition of talent occurs at each career transition as the goal of a research career is reconsidered
- In 2014, ~11% of those enrolled in US neuroscience graduate programs were from underrepresented groups*
- A goal of the NIH is to “create seamless transitions for biomedical career advancement and progression”

*National Science Foundation, National Center for Science and Engineering Statistics. 2015. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2015*. Special Report NSF 15-311. Arlington, VA. Available at http://www.nsf.gov/statistics/wmpd/.

NIH National Institutes of Health

Making a Funding Strategy: Focus on Transitions



NIH National Institutes of Health

Early Stage Investigator (ESI)

- Definition of Early-Stage Investigator: An individual who qualifies as a New Investigator and is within 10 years of completing his/her terminal research degree or is within 10 years of completing medical residency
- Early-Stage Investigator Applying for R01 or DP2 grants:
  - **Receive special attention at Review (career stage) and at National Advisory Council (high program priority)**
  - **No imposed reductions in duration and amount of awards (beyond the recommendations of the initial review group)**
  - **Increased payline for scored R01 applications from Early-Stage Investigators**

(see NIH ESI Website and FAQs).

NIH National Institutes of Health

Early Career Reviewer Program

- **One of the best ways to build your grant writing skills is to serve as a reviewer.**
- **The NIH Center for Scientific Review (CSR) Early Career Reviewer (ECR) program was developed to:**
  - train qualified scientists without prior CSR review experience so that they may become effective reviewers,
  - help emerging researchers advance their careers by exposing them to peer review, and
  - enrich the existing pool of NIH reviewers by including scientists from less research-intensive institutions as well as those from traditionally research- intensive institutions.
- **Prior NIH funding is NOT a requirement.**

https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR/BecomeanEarlyCareerReviewer

NIH National Institutes of Health

Faculty Institutional Recruitment for Sustainable Transformation (FIRST)

ISTOCK.COM/ERHUI1979, ADAPTED BY C. AYCOCK/*SCIENCE*

NIH's new cluster hiring program aims to help schools attract diverse faculty

By Jeffrey Mervis | Jan. 30, 2020 , 11:30 AM

Goal: Create cultures of inclusive excellence at NIH-funded institutions.

1. **Faculty cohort model** for hiring, multi-level mentoring, professional development
2. **Integrated, institution-wide systems** to address bias, faculty equity, mentoring, and work/life issues
3. **Coordination and Evaluation Center (CEC)** to conduct independent program evaluation of impact at the faculty and institutional level; departmental and institutional culture change, and; establish initiative-wide metrics of faculty success, recruitment and professional development at pre-tenure career stages.

NIH National Institutes of Health

Scientific Workforce Diversity - Guidance

- **Why Diversity Matters to NIH** – Dr. Le Fauve
- **How Do You Start ? Overview of Training Opportunities** – Dr. Gibbs
- **How Do You Continue? (Postdoc to Early Faculty)** – Dr. Jones-London
- **Mentorship for All Career Stages** – Dr. Rivers

Practicing Inclusion and Mentorship

- Data from several studies show:
  - Mentorship requests from scientists from underrepresented groups, including women, are **more likely to be ignored** than those from white men.
  - Scientists from underrepresented groups **typically receive less mentoring** than their well-represented peers.
  - Recommendation letters based on gender reveal different tendencies (whether letter-writer is female or male)
- Lack of or failed mentorship can promote career **attrition or limit career advancement**.
- Sponsors connect mentees to "power" through award nominations and membership in professional networks

Inclusion is about experiences, not demographics. It's about being confident enough in a space to share your thoughts, ideas, and concerns—and to have them heard in a meaningful way.

-Sabriya Stukes, PhD

NIH National Institutes of Health

Please Contact Us

Program officers can provide insight into NIH funding process

Each of the NIH Institutes and Centers use the basic funding mechanisms in different ways relevant to their mission

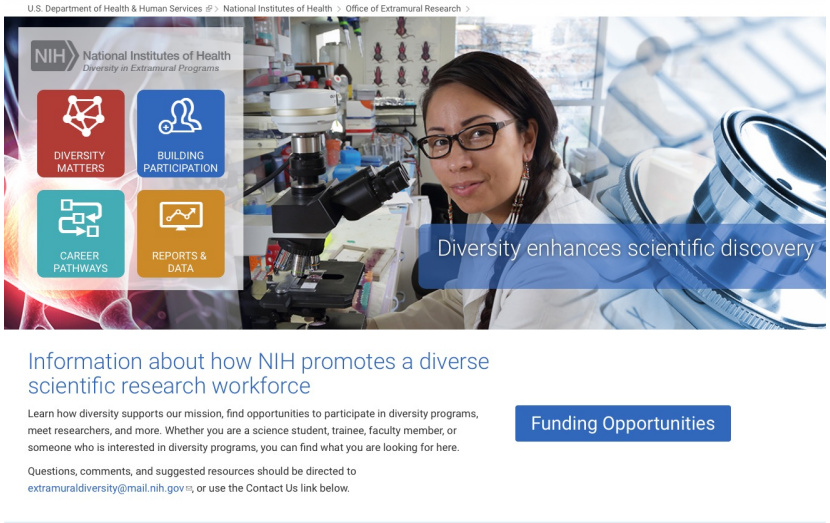
- **Different missions & research and funding priorities**
- **Different budgets**
- **Different ways of deciding which grants to fund**

*****There are lots of opportunities – go for it!**

NIH National Institutes of Health

National Institutes of Health

Questions?



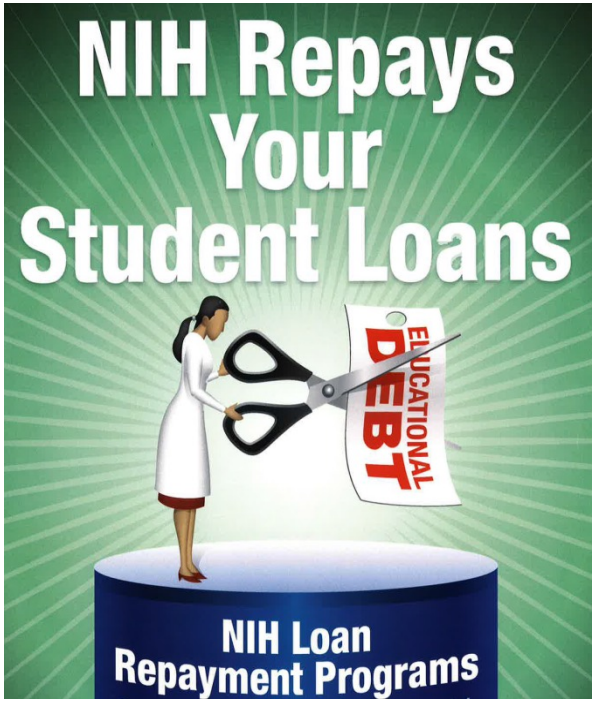
https://extramural-diversity.nih.gov

NIH Loan Repayment Program (LRP)

NIH LRPs will repay:

- Up to **$100K over 2 years** in educational loan repayment
  - Depending on debt level
- Coverage of most Federal taxes resulting from the NIH LRP
- 2-year initial contracts
  - 1-or 2-year competitive renewals
- 50% application success rate overall

Extramural LRP Application Deadline
Nov 20, 2020



NIH National Institutes of Health

Keys to Success

- Don’t let DEBT Stop You!

- Don’t Forget to Resubmit!

- Contact POs Early!

- Empowerment

- Persistence

- Mentorship

NIH National Institutes of Health


NIH
National Institutes of Health

END OF SLIDES FROM NIH ON DIVERSITY SUPPLEMENTS

Tips from transition from K to R

- **Find your niche:** Exclusive corner of your field where you could conduct research for the next 10 years
  - Locate most promising research needs and opportunities in your field.
  - Assess whether you have the skills to make an impact (one or more prior publications should be along this theme)
  - Look at the other players and judge whether you can compete.
  - Network with these players; search the literature and people online (those people will be your reviewers). Meet them at meetings, ask a question about their research, follow-up with an email

NIAID Pick a Research Project
http://www.niaid.nih.gov/researchfunding/grant/strategy/Pages/2picktopic.aspx#a

Agenda

- Overall funding opportunities for ID fellows at NIH and other agencies
- Data on K awards (and other career tracks) in the UCSF ID fellowship for the past 10 years
- Tips, timing and resources for writing a K award
- (ID fellows) - process to write a K or other career development grant at the three hospitals/Divisions


SFVA

Process for K (or K-equivalent) awards at SFVA

- Fellow doing mentored research with SFVA ID division faculty member
- Upon notice of award, appointed to UCSF Assistant Professor (Adjunct or Clinical) Step 1.
- Additional VA FTE are allocated through the following process:
  - Primary mentor approaches Chair of SFVA Medical Research Council (MRC) ~3 months prior to submission of K
  - Fellow gives “job talk” to MRC (meets monthly) that includes 12 senior clinical and basic scientists from a variety of subspecialties, including ID and Vice Chair of DOM.
- VA Career Development Awards
  - Must include a VA-funded research mentor
  - Provides 100% VA FTE


ZUCKERBERG SAN FRANCISCO GENERAL
HOSPITAL AND TRAUMA CENTER

Division of HIV, ID and Global Medicine: Process for a fellow to apply for a K award

UCSF Division of HIV, Infectious Diseases & Global Medicine
Department of Medicine

- ID (and other postdoctoral fellows) work with a primary research mentor in the Division of HIVIDGM
- K deadlines at NIH (for HIV – September, January, May; for non-HIV October, February, June); institutional K12 award deadlines vary
- Primary research mentor approaches Division Chief (Havlir)/ Associate Division Chief (Gandhi) about fellow applying for a K award 4-5 months ahead of time
- Requirement for fellow to have two first-author publications during fellowship prior to applying to the Division's "Fellow Research Committee" composed of NIH-funded researchers (exceptions can be made for basic scientists for one publication if appropriate).

Division of HIV, ID and Global Medicine: Process for a fellow to apply for a K award

UCSF Division of HIV, Infectious Diseases & Global Medicine
Department of Medicine

- If approved to present to Fellows' Research Committee, meeting scheduled for at least 3 months before K deadline
- Job talk on fellow's background, K aims, training plan, general outline of research plan
- Mentor(s) presentation on candidate & how salary cap will be covered (fellow out of room)
- Evaluations compiled & decision conveyed to fellow and mentor on whether application for a K approved (generally supportive); comments for suggestions on aims conveyed to fellow
- Division Chief works with Chair of DOM at ZSFG to garner appropriate institutional support letter for K application
- Generally, 2 K application submissions on same topic allowed per fellow per NIH & Division rules


UCSF Medical Center | UCSF Benioff Children's Hospital
MAIN ENTRANCE
UCSF Medical Center | UCSF Benioff Children's Hospital
505 Parnassus Avenue

UCSF Health/Parnassus ID Division K application process

- Determining who can apply
  - Fellow doing research with UCSF ID division-affiliated faculty member
- Process
  - Each K application considered holistically by UCSF ID chief (Engel) in consultation with applicant and their mentor
- If K award received, applicant appointed as Adjunct Assistant Professor Step 1 in the UCSF ID division
  - Applicant eligible for merit increases
- There is no guarantee of tenure-track-equivalent position
  - Applicant can apply through the standing DOM bench scientist search committee if and when appropriate

Questions?