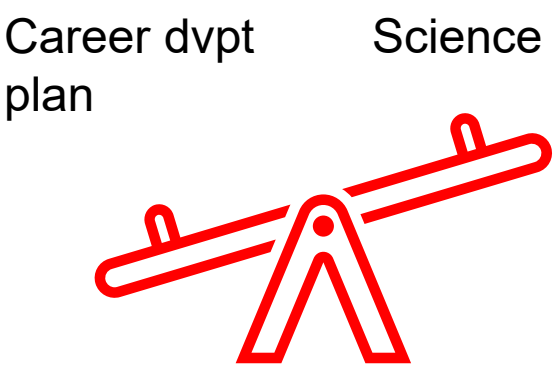
Why a Career Development Award?

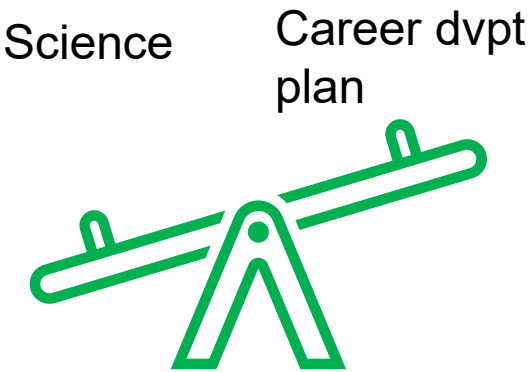
- To provide protected time for individuals to further develop their research career
- The odds of funding are considerably higher than with an R01
- ~20 awarded annually at OHSU
- K awards most common but don’t forget VA CDA, NSF, AHA, ACS

K Award Structure

There are two components that are equal in weight

- The science
- Career development plan





Common Features of K awards

- 75% protected time for research
- Other 25% for clinical, teaching, admin, research
- Must have faculty appointment except K99
- US Citizen or non-citizen US nationals (except K99)
- Must have mentor team
- 3 to 5 years duration
- Most commonly $100K salary and $25-50K research funds annually but varies by program, IC
- Cannot have had NIH RPG except R03, R21

Common Features: Appointment & Effort

- Appointment:
  - For K eligibility purposes, must have a full-time appointment secured at the time of application
- Level of Effort:
  - Mentored awards require full-time effort (defined as at least 9 person months (i.e.75%) on research and the rest on other career development related activities)
  - Note, some K programs permit 50% effort for clinical specialties

How to start

- Learn about NIH IC priorities and goals
- Identify the grant programs offered by each IC. Institutes are not harmonized.
- What are the institute priorities?
- Make early contact with program officers
- Find strong mentors and collaborators
- Study successful grant applications
- Only propose your best and most creative ideas
- You won’t get a grant if you don’t apply

Mentored K Awards

- K01: Mentored Research Scientist Development Award
- K08: Mentored Clinical Scientist Development Award
- K23: Mentored Patient-Oriented Research Development Award
- K99/R00: NIH Pathway to Independence Award
- K22: Research Career Award for Transition to Independence
- K25: Mentored Quantitative Research Development Award
- K12: *Institutional* Mentored Research Scientist Development Program

Three sites to know

https://report.nih.gov/funding/nih-budget-and-spending-data-past-fiscal-years/success-rates

Go here to find success rates for every type of K award submitted (or any other grant) by institute by year

https://reporter.nih.gov/

Go here to browse through all funded federal awards by type, location, scientific focus, etc.

https://researchtraining.nih.gov/programs/career-development

Go here to see an app that may help you determine which K award to apply for

K01- Mentored Research Scientist Development Award

- Support for intensive, supervised career development in biomedical, behavioral, or clinical sciences leading to research independence.
- 75% FT effort, usually fixed salary
- Define the need for 3-5 years of additional supervised research, can be in *new area for applicant or one that substantially adds to research capability* of applicant
- Specific focus, ~~under-represented in research, disability, disadvantaged background,~~ interruption of research career

K01s vary by IC

NCI	2 to 5 years postdoc, ~~diversity, disadv, disability~~; Also cancer control and prevention	$100K, $30K res
NIDDK	Supports basic scientists	$90K, $25 res
NHLBI	~~Diversity, disadvantaged, or disability~~ OR epidemiology, biostats, outcomes, implementation	$100K, $30K res
NHGRI	Ethical and social issues in genome science, some genome science research	No $ limit for salary, $40K res
NIA	Parent FOA	$75K, $20K res
NIAMS	Parent FOA	$75K, $20K res
NICHD	1. Medical rehabilitation 2. Child abuse and neglect 3. Population research, demography	$75K, $25K res
NIDA	Parent FOA	$90K, $50K res
NIMH	<6 yrs postdoc, 4 years support only	$90K, $50K res

K01 success rates 2023

	Applications	Successful	Percent
NCI	28	6	21%
NHLBI	80	34	42%
NIDDK	78	21	27%
NIAID	24	10	42%
NCCIH	7	4	57%
NIMHD	29	17	59%
NINDS	12	5	42%
NIA	97	33	34%
NIAMS	15	4	27%
NICHD	20	4	20%
NIMH	97	27	28%
NIDA	57	22	39%

NIH Pathway to Independence (PI) Award: K99 / R00

- **Eligibility:**
  - Intramural or extramural postdocs with 1-4 years of experience
  - US Citizens and non-US Citizens
  - Cannot have held a faculty position
  - No more than 4 years of postdoc research training when submitted
  - Cannot have been PI on R01, P01, etc (except R03, R21)
- **Mentored Phase (K99): 2 yrs or less**
  - Costs: Salary $ 75,000 + Fringe + $ 20,000 Research Expenses
  - Total Costs cap
  - 0.75 FTE, Time to complete research, publish results
- **Independent Investigator Phase (R00): 3 yrs or less**
  - Costs: Salary + Fringe + $ 50,000 Research Expenses
  - Total Costs < $ 249,000 /yr

NIH Pathway to Independence (PI) Award K99 / R00

- Phase 1, 1-2 years of mentored support
- Phase 2, 3 years of independent support
- Phase 2 contingent on securing independent research position, evaluation of research plan, positive career development
- Initial application must have proposal for research project as independent investigator in Phase 2

K99/R00 continues

- Transition from K99 to R00 is NOT automatic
- Contingent on securing an appointment as assistant professor, tenure track
- Only 30% of salary from R00
- NIH PO approves faculty position
- Expected to apply for R01 during R00 phase

K99 success rates 2023

	Applications	Successful	Percent
NCI	245	38	16%
NHLBI	131	41	31%
NIDDK	69	15	21%
NIAID	95	18	19%
NCCIH	6	1	17%
NIMHD	11	3	27%
NINDS	120	25	21%
NIA	148	33	22%
NIAMS	28	7	25%
NICHD	71	30	42%
NIMH	82	14	17%
NIDA	60	17	28%

K08-Mentored Clinical Scientist Development Award

- Goal is to support development of outstanding clinician research scientist
- Similar to K23 (NCI is exception)
- Limited to clinicians (MD/DO, clinical PhD, others with terminal doctorate, clinical license)
- 75% FTE up to salary cap, $25K to $50K for research
- Prospective candidate should propose study, research training for all years consonant with previous training and needs

K08 success rates 2023

	Applications	Successful	Percent
NCI	204	50	24%
NHLBI	107	38	36%
NIDDK	55	25	46%
NIAID	58	27	47%
NCCIH	0	0	
NIMHD	4	3	75%
NINDS	48	19	29%
NIA	17	5	29%
NIAMS	27	9	33%
NICHD	19	4	21%
NIMH	16	7	44%
NIDA	11	5	46%

K23 - Mentored Patient-Oriented Research Career

- Clinical degree or equivalent.
- Must have completed clinical training, including specialty/subspecialty training, prior to receipt
- Must be willing to spend minimum of 75% FT professional effort on research career development and clinical research.
- Must be citizen, noncitizen national, or permanent resident (no temp or student visas)
- No prior R01, R29, SBIR, P01 or P50 subproject, K08 or equivalent. R03 or R21 OK.

K23 success rates 2023

	Applications	Successful	Percent
NCI	-	-	-
NHLBI	156	56	34%
NIDDK	79	32	40%
NIAID	39	17	44%
NCCIH	8	3	38%
NIMHD	18	5	28%
NINDS	60	11	18%
NIA	65	24	37%
NIAMS	27	14	52%
NICHD	76	21	28%
NIMH	124	41	33%
NIDA	47	22	47%

K25- Mentored Quantitative Research Development Award

- For statisticians, chemists, engineers, physicists, computer scientists
- May be faculty-level scientists with little training in biology, medicine
- Must be willing to spend minimum of 75% FT professional effort on research career development and clinical research.
- Must be citizen, noncitizen national, or permanent resident (no temp or student visas)
- 3-5 years of study, seminars, observation, mentored research
- NHLBI, NIA, NIAA, NIAID, NIGMS, NIDA, NIEHS, NIDCD, NIDDK, NICHD

Other K awards

- CDC, PCORI and AHRQ have K awards
- K07 Academic Career Development Award

May be curriculum development, development of teacher scientist. Also related to research ethics.

- K22 Career Transition Award.

Often intramural, but includes NIAID, NCI

- K76 Paul Beeson Emerging Leaders Career Development Award in Aging

Like a K23 but better!

- R50 NCI Research Specialist

Support to non-PI; stable research specialist, essential to lab operation such as core director, data scientist.

Institutional K12

- Scholars selected by institution, program leadership
- Awards 2 or 3 years of research training usually
- Could be considered a pre-K award
- Otherwise, fairly typical compared to individual K awards
- What follows a K12? Usually another K award (K01, K23, K08) but could be RPG
- Irregular application cycles

K12 awards at OHSU

- OCTRI KL2
- BIRCWH K12 (Building interdisciplinary research careers in women's health)
- Women's reproductive health research K12
- Ophthalmology K12
- COSTAR K12 (addiction medicine)

What has been achieved?

- Reduced time to R01? Sadly, no
- Gender equity. Yes, differentiated by application rates
- Increased odds of subsequent NIH funding? Yes (~45% for K01, K23, K08)
- Publication? Yes, K awardees have more pubs than non-awardees at same stage
- More involved in the scientific community? Yes, K awardees are highly engaged in scientific enterprise.

K to R at OHSU

	Advance to NIH RPG or equivalent	Advance to NIH R01 or equivalent
Overall (2009-20)	101/129 (78%)	84/129 (65%)
K01	13/16 (81%)	10/16 (62%)
K08	24/29 (83%)	18/29 (62%)
K23	29/39 (74%)	25/39 (64%)
K25	3/3 (100%)	2/3 (67%)
VA CDA	25/31 (81%)	24/31 (77%)
Foundation CDA	7/11 (64%)	5/11 (45%)

Other CDA to consider

- VA CDA1 and CDA2
  - Somewhat more generous research costs
  - Helps one to get established within VA
- NSF
  - Faculty Early Career Development Program (CAREER)
  - Must be Asst Prof
  - No citizenship requirements
  - Minimum $400K over 5 years; $500K for biology, engineering, or polar research

Foundations, professional organizations

American Heart Association

- Up to Asst Professor (inclusive)
- ≤4 years since doctoral degree
- Can submit as a postdoc
- Citizenship includes many different visas

American Cancer Society

- Phasing out research scholar grants, now emphasizing clinical scientist development

American Diabetes Association

- Junior Faculty Development
- $138K total, $75K PI salary
- Up to Assistant Professor (inclusive)
- ≤10 years after terminal degree

Local Foundations

Medical Research Foundation of Oregon

- These are often the first grants for new faculty
- Funding begets funding…..

New Investigator Awards

- $50K, can include some salary
- Should be at the beginning of an independent career

Early Career Investigator

- $30K, can include some salary
- Postdoc or clinical fellows are eligible
- Must be clinical or translational research

Local Foundations

Collins Memorial Trust

- $30K awards given 3 times a year
- Seed funding for projects that will be eligible for larger funding, like NIH
- Early investigators must have mentor

Assistance?

- OCTRI Clinical Research Design team
- OCTRI Design Studio
- Mock study section (clinical or translational, just building capacity)
- Letter from OCTRI scholars program that offers institutional support