

Why a Career Development Award?

- To provide protected time for individuals to further develop their research expertise
- Because the odds of funding are higher than with an R01
- 78 awarded at OHSU since 2017
- K awards most common but don't forget VA CDA, NSF, AHA, ACS

Early Career Advice

- Learn about NIH IC priorities and goals
- Identify the grant programs offered by each IC. Institutes are not harmonized.
- Identify the priorities of the IC. These can change!
- Make early contact with program officers
- Find good 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

K Award Structure

Two equal components

- **The science**
- **Career development plan**
- **They are equal in importance**

Common Features of K awards

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

Common Features: Appointment & Effort

- **Appointment:**
 - For K eligibility purposes, individual must have a **full-time** appointment at applicant organization 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

Mentored K Awards

- **K01: Mentored Research Scientist Development Award**
- **K07: Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award**
- **K08: Mentored Clinical Scientist Development Award for Laboratory Research**
- **K22: Research Career Award for Transition to Independence**
- **K23: Mentored Patient-Oriented Research Development Award**
- **K25: Mentored Quantitative Research Development Award**
- **K99/R00: NIH Pathway to Independence Award**
- **K12: *Institutional* Mentored Research Scientist Development Program**

Three sites to know

https://report.nih.gov/success_rates/

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

<https://projectreporter.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
- Ideal candidate varies by institute
- Specific focus, under-represented in research, disabled, disadvantaged background, interruption of research career

K01s vary by IC

NCI	2 to 5 years postdoc, diversity, disadv, disability	\$100K, \$25K res
NIDDK	2 to 4 years postdoc req	\$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 res	No \$ limit for salary, \$40K res
NIA	Parent FOA	\$90K, \$25K 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 2020

	Applications	Successful	Percent
NCI	15	8	53%
NHLBI	90	32	36%
NIDDK	119	39	33%
NIAID	21	9	43%
NCCIH	10	3	30%
NIMHD	36	15	42%
NINDS	17	5	29%
NIA	92	22	29%
NIAMS	32	8	25%
NICHD	8	3	37%
NIMH	75	29	39%
NIDA	75	22	29%

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 \$ 50,000 + Fringe + \$ 20,000 Research Expenses
 - Total Costs < \$ 90,000 /yr
 - 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**

K08-Mentored Clinical Scientist Development Award

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

K08 success rates 2020

	Applications	Successful	Percent
NCI	172	65	36%
NHLBI	92	45	49%
NIDDK	66	28	42%
NIAID	41	19	46%
NCCIH	2	0	0%
NIMHD	2	0	0%
NINDS	59	18	31%
NIA	54	22	41%
NIAMS	20	6	30%
NICHD	2	1	50%
NIMH	15	8	53%
NIDA	9	4	44%

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 2020

	Applications	Successful	Percent
NCI	-	-	-
NHLBI	175	75	43%
NIDDK	83	39	47%
NIAID	36	8	22%
NCCIH	16	7	44%
NIMHD	17	7	41%
NINDS	68	15	22%
NIA	16	8	50%
NIAMS	30	9	30%
NICHD	7	5	71%
NIMH	107	40	37%
NIDA	50	13	26%

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

- **K07 Academic Career Development Award.**

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

- **K22 Career Transition Award.**

Often intramural, but includes NIAID, NCI. Usually 2-3 years.

- **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, 3, or 5 years of research training**
- **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. Watch blogs or talk with program directors or OCTRI**

K12 awards at OHSU

- **OCTRI KL2**
- **BIRCWH K12 (Building interdisciplinary research careers in women's health)**
- **Learning health systems K12 (with KP)**
- **Emergency medicine K12**
- **Women's reproductive health research K12**
- **Ophthalmology K12**

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

Do you need some pilot or feasibility data to apply?

- **Technically no.**
- **Practically yes.**
- **Funding begets funding. It demonstrates your research interest to reviewers**
- **It allows reviewers to see that others see you as fundable, never a small matter**

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**

Plan Your Next Steps

- **Commit to a date and application cycle.**
- **Identify the funding mechanism and IC**
- **Confirm a research question and start to formulate specific aims**
- **Talk with potential mentors and identify at least one person who will support you throughout grant writing. Your team is larger.**
- **Consult the grant library**
- **Have a strong draft of aims**
- **Contact the appropriate PO**
- **Listen carefully to advice and follow through**
- **Have strong draft by 2 mos prior to due date**
- **Share with others**
- **Design Studio**

K awards Part 2

October 13 12-1 pm Wednesday

Look for an invitation