

WELCOME!

WHAT YOU NEED TO KNOW TO START AND COMPLETE AN EFFECTIVE K99/R00 APPLICATION

NOV 11TH, 2020

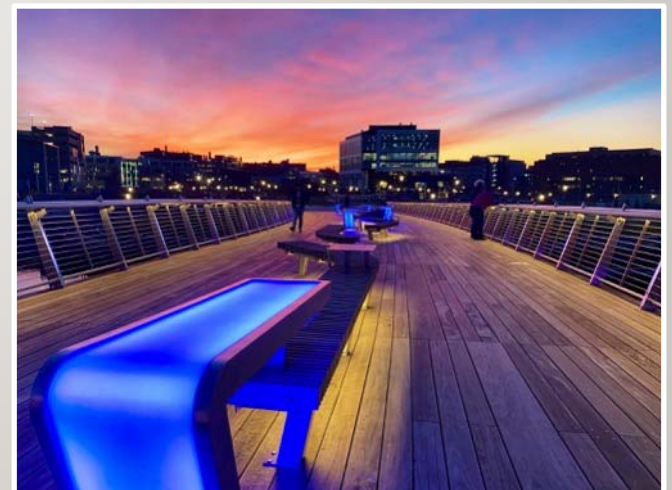
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Development

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Biology & Medicine

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 Poll is full and no longer accepting responses

Describe in one word how you are feeling at this point in your training

underwhelmed confused hope
apprehensive
tired
stressed
excited
courageous
open
uncertain
unsure
anxious
discouraged
okay
nervous

 Poll Everywhere

Insert activity

I. OVERVIEW OF THE K AWARD

II. GETTING STARTED

III. WRITING AN EFFECTIVE APPLICATION

https://researchtraining.nih.gov/career-path

PA-20-188: NIH Pathway to Independence Award (Pa...PAR-19-343: Maximizing Opportunities for Scientific...Career Path | Research Training and Career Develop...+

NIH

National Institutes of Health

Research Training and Career Development

Division of Biomedical Research Workforce

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About DBRW

Career Path

Programs

Institute/Program Matrix

Resources

Undergraduate

Graduate/Doctorate

Postdoctoral/Residency


Early Career

Established Investigator

Career Path

RTCD Home > Career Path

NIH programs help to prepare the skilled, creative and diverse biomedical research workforce of tomorrow




Undergraduate and Postbaccalaureate Education

Predoctoral Training/Clinical Doctorate

Postdoctoral Training/Clinical Residency


Early Research Career Development

Investigator Development and Mentoring




Undergraduate Education

Engaging in research projects outside the classroom during undergraduate years is important.




Early Career

The main goal for these early career researchers is to establish themselves and their teams as experts in their fields of research.



Graduate/Clinical Doctorate

The emphasis during these years is on acquiring the fundamental knowledge to master scientific research or clinical discipline. An experienced mentor is critical to successful training.



Established Investigator

Established researchers are focused on their independent research, and use their broad knowledge and scientific expertise to impact public health and society at large.

CAREER (K) KIOSK

[HTTPS://RESEARCHTRAINING.NIH.GOV/PROGRAMS/FELLOWSHIPS](https://researchtraining.nih.gov/programs/fellowships)

NIH Programs for Postdoctoral Researchers and Clinical Residents

You apply for Individual Awards:

F32

Ruth L. Kirschstein Postdoctoral Individual National Research Service Award

To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.

[Details](#)

K01

Mentored Research Scientist Career Development Award

For support of a postdoctoral or early career research scientists committed to research, in need of both advanced research training and additional experience.

[Details](#)

K07

Academic Career Development Award

To support either a mentored or independent investigator to develop or enhance curricula, foster academic career development of promising young teacher-investigators, and to strengthen existing teaching programs.

[Details](#)

K08

Mentored Clinical Scientist Research Career Development Award

To provide the opportunity for promising clinician scientists with demonstrated aptitude to develop into independent investigators, or for faculty members to pursue research, and aid in filling the academic faculty gap in health profession's institutions.

[Details](#)

K22

Career Transition Award

To provide support to outstanding newly trained basic or clinical investigators to develop their independent research skills through a two phase program; an initial mentored research experience, followed by a period of independent research.

[Details](#)

K23

Mentored Patient-Oriented Research Career Development Award

To provide support for the career development of clinically trained professionals who have made a commitment to patient-oriented research, and who have the potential to develop into productive, clinical investigators.

[Details](#)

K25

Mentored Quantitative Research Career Development Award

To support the career development of investigators with quantitative scientific and engineering backgrounds outside of biology or medicine who have made a commitment to focus their research endeavors on basic or clinical biomedical research.

[Details](#)

K43

Emerging Global Leader Award

To provide research support and protected time to a junior scientist with a faculty position at an LMIC institution leading to an independently funded research career.

[Details](#)

K76

Emerging Leaders Career Development Award

To advance the development of physician-scientists prepared to take an active role in addressing present and future challenges of a global biomedical research enterprise.

[Details](#)

K99/
R00

Pathway to Independence Award

To support both an initial mentored research experience (K99) followed by independent research (R00) for highly qualified, postdoctoral researchers, to secure an independent research position. Award recipients are expected to compete successfully for independent R01 support during the R00 phase.

[Details](#)

You apply for Loan Repayment Programs:

CLINICAL TRIALS IN K AWARDS

***Be sure to look at the correct Funding Opportunity Announcement (FOA) to see if independent clinical trials permitted**

- **Independent Clinical Trial**

- Led and funded by the PI of the K application
- May be an independent ancillary trial to a larger trial or a feasibility study.
- Human subjects/clinical trial form required

- **Clinical Trials Research Experience**

- K applicant participates in a clinical trial led/funded by a mentor

WHAT IS K99/R00 ALL ABOUT?

Program Purpose

- Facilitate a timely transition from postdoc to independent, tenure-track or equivalent faculty positions
- Mentored phase (K99) provides 1-2 years of mentored support to promising postdoc (up to \$100K/yr)
- Followed by up to 3 years of independent support (R00) contingent on independent research position (up to \$249K/yr), apply for R01.
- If an applicant achieves independence before a K99 award is made, neither the K99, nor the R00 award, will be made.

WHO IS ELIGIBLE?

- U.S. citizen/non-citizen, with research or clinical doctoral degree (PhD, MD, DO, DC, ND, DDS, DMD, DVM, ScD, DNS, PharmD)
- No more than 4 years of Postdoc research experience @ application (Possible exceptions for parental, medical, other leave, or non-research residency training)
- Institution must be US Domestic Institution
- For non-U.S. citizens with temporary U.S. visas, **visa status during each phase** of the K99/R00 award must allow the PD/PI to conduct the proposed research at the applicant institution.



- Candidates encourage to **contact Program Officer** to confirm eligibility (PA lists participating institutes)

MOSAIC AWARD

- Facilitate a timely transition from postdocs **from diverse backgrounds** to independent, tenure-track or equivalent faculty positions in research-intensive institutions
- Offered through NIGMS
- Paired with UE5 which funds independent organizations to support educational activities to provide cohorts of MOSAIC K99/R00 scholars professional skills training, mentoring, and professional networking
- Enhance institutional accountability for the scholars' career advancement
- **By the time of award, the individual must be a citizen or a non-citizen national of the United States or have been lawfully admitted for permanent residence

BEFORE GETTING STARTED

- ✓ Assess your career situation and needs...
- ✓ Is the K99/R00 the right award for you, or would another award be more appropriate?
- ✓ Take a deep breath, this process will benefit you regardless of whether you are funded!



I. OVERVIEW OF THE K AWARD

II. GETTING STARTED

III. WRITING AN EFFECTIVE APPLICATION

TIMELINE FOR K APPLICATIONS



Receipt Date:

- Feb 12 (Mar 12)
- Jun 12 (Jul 12)
- Oct 12 (Nov 12)

Review:

- Jun/July
- Oct/Nov
- Feb/Mar

Council:

- October
- January
- May

Award Date:

- December
- April
- July

*Start at least 6 months prior to the application due date

*Aim for complete draft at least 1 month before due date



National Institutes of Health
Office of Extramural Research



****BECOME FAMILIAR WITH PARENT ANNOUNCEMENT****

<https://grants.nih.gov/grants/guide/pa-files/PA-19-130.html>

[PA-20-130](#): NIH Pathway to Independence Award (Parent K99/R00 - Independent Clinical Trial Not Allowed)

[PAR-19-343](#): Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Postdoctoral Career Transition Award to Promote Diversity (K99/R00 - Independent Clinical Trial Not Allowed)

grants.nih.gov

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PA-19-130: NIH Path... New Tool To Find a P... Matchmaker - NIH R... NOT-OD-20-026: N... https://grants.nih.go... The ALS-inducing F... NIH Pathway to Inde... +

HOME ABOUT GRANTS FUNDING POLICY & COMPLIANCE NEWS & EVENTS ABOUT OER

Home » Funding » NIH Pathway to Independence Award (Parent K99/R00 - Independent Clinical Trial Not Allowed) (PA-19-130)

NIH Pathway to Independence Award (Parent K99/R00 - Independent Clinical Trial Not Allowed) (PA-19-130)

PA-19-130

Table of IC-Specific Information, Requirements and Staff Contacts

Release Date: December 20, 2018
Expiration Date: January 8, 2022

NIH Institute or Center Contacts	Institute/Center Specific Information
<p>National Cancer Institute (NCI)</p> <p>Scientific Program Contact: Michael Schmidt, Ph.D Email: mschmidt@mail.nih.gov</p> <p>Sergey Radaev, Ph.D sradaev@mail.nih.gov</p> <p>Grants Management Contact: Jason Gill Email: gilljas@mail.nih.gov</p>	<p>NCI-Specific Information: The NCI accepts K99/R00 applications in all areas of cancer research. Additional NCI-specific information/requirements can be found at: http://www.cancer.gov/grants-training/training/funding/K99</p> <p>NCI does not allow carry-over of unspent funds from the K99 phase into the R00 phase.</p> <p>Salary Support: Up to \$100,000 plus fringe benefits per year. Research Support: Up to \$30,000 per year.</p>
<p>National Eye Institute (NEI)</p> <p>Scientific Program Contact: Neeraj Agarwal, Ph.D. Phone: (301) 451-2020 Email: agarwalnee@mail.nih.gov</p> <p>Grants Management Contact: Karen Robinson-Smith Phone: (301) 451-2020 Email:</p>	<p>NEI Specific Information: NEI will accept applications for funding that are responsive to programmatic priority areas for research within vision and ophthalmology as detailed in the National Plan for Eye and Vision Research found at www.nei.nih.gov.</p> <p>Salary Support: NEI will provide salary support commensurate with the applicant institution's salary structure for persons of equivalent qualifications, experience, and rank. Research Support: Up to \$25,000 per year.</p>

<https://grants.nih.gov/grants/guide/contacts/parent-K99-CT-not-allowed.html>

NIH INCLUDES 27 INSTITUTES AND CENTERS

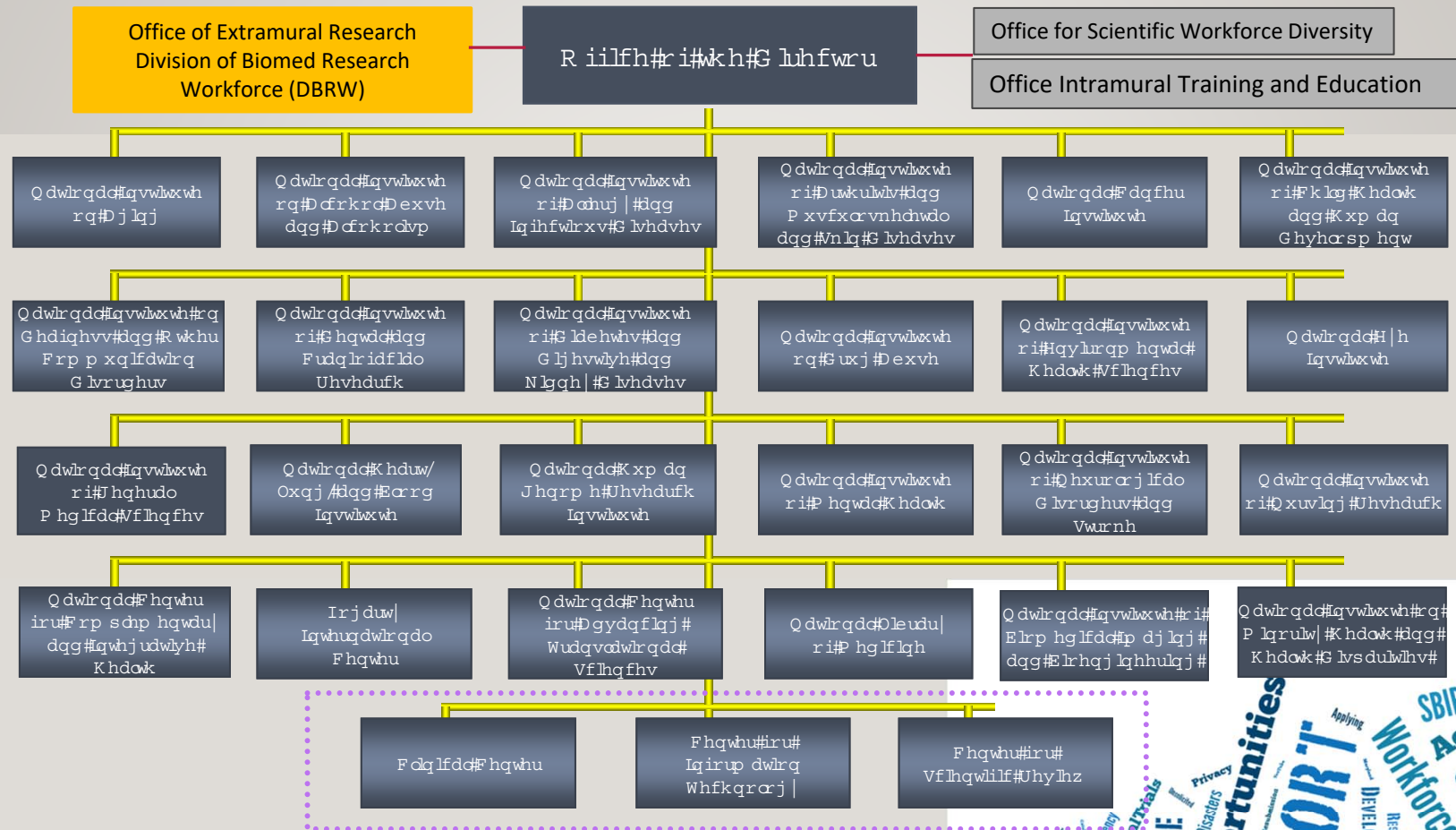


Table #204
NIH CAREER DEVELOPMENT (K) GRANTS
Competing Applications, Awards, Success Rates and Total Funding
by Activity Code and NIH Institutes/Centers
Made with Direct Budget Authority Funds
Fiscal Years 2010 - 2019

**Excludes awards made with American Recovery and Reinvestment Act (ARRA) funds.

Select AutoFilter to view totals or change display criteria.

	Fiscal Year	Activity Code	NIH Institute / Center	Number of Applications Reviewed	Number of Applications Awarded	Success Rate ¹	Total Funding ²
1520	2019	K99	NCI	182	22	12.1%	\$2,507,819
1521	2019	K99	NHLBI	112	33	29.5%	\$4,096,354
1522	2019	K99	NIDCR	19	7	36.8%	\$930,350
1523	2019	K99	NIDDK	66	10	15.2%	\$914,999
1524	2019	K99	NINDS	56	11	19.6%	\$1,062,753
1525	2019	K99	NIAID	68	13	19.1%	\$1,573,001
1526	2019	K99	NIGMS	111	20	18.0%	\$1,949,791
1527	2019	K99	NICHD	76	26	34.2%	\$2,980,319
1528	2019	K99	NEI	33	12	36.4%	\$1,374,991
1529	2019	K99	NIHES	34	9	26.5%	\$893,721
1530	2019	K99	NIA	90	24	26.7%	\$2,880,240
1531	2019	K99	NIAMS	15	3	20.0%	\$281,227
1532	2019	K99	NIDCD	17	4	23.5%	\$502,704
1533	2019	K99	NIMH	70	25	35.7%	\$2,741,780
1534	2019	K99	NIDA	51	16	31.4%	\$2,409,260
1535	2019	K99	NIAAA	16	5	31.3%	\$690,455
1536	2019	K99	NINR	8	2	25.0%	\$182,685
1537	2019	K99	NHGRI	14	8	57.1%	\$974,230
1538	2019	K99	NIBIB	22	5	22.7%	\$452,816
1539	2019	K99	NCCIH****	5	2	40.0%	\$252,180
1540	2019	K99	NIMHD***	6	0	0.0%	\$0
1541	2019	K99	NLM	12	3	25.0%	\$271,005
1542	2019	K99	ACTIVITY TOTAL	1,083	260	24.0%	\$29,922,680
1543	2019	KL2	NCATS	8	8	100.0%	\$9,967,584
1544	2019	KL2	ACTIVITY TOTAL	8	8	100.0%	\$9,967,584
1545	2019	FY Total		3,510	1,118	31.9%	\$188,059,259

New Query



PROGRAM OFFICIAL

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Exclude Subprojects? ☐

RESUBMIT


[Click here to view detailed Charts](#)

Activity Code	Program Official
R01	90
R21	38
F31	12
R03	9
F32	8
RF1	7

1 of 7 [Next](#) [Last](#)  

https://projectreporter.nih.gov/reporter_matchmaker.cfm?source=RPCO&new=1

See what is being funded by NIH: *Research Portfolio Online Reporting Tools (RePORT: <https://report.nih.gov>)*


**Research Portfolio Online Reporting Tools
(RePORT)**

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There were **33** results matching your search criteria . Records per page 25 Show/Hide Search Criteria

Click on the column header to sort the results 1 2 Page 1 of 2 [Next](#) [Last](#)


T: Application Type; Act: Activity Code; Project: Admin IC, Serial No.; Year: Support Year/Supplement/Amendment

	T	Act	Project	Year	Sub #	Project Title	Contact PI/ Project Leader	Organization	FY	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
<input type="checkbox"/>	5	K99	HL145004	02		HOMEOSTATIC PLASTICITY OF THE RESPIRATORY RHYTHM GENERATING NETWORK	BAERTSCH, NATHAN ANDREW	SEATTLE CHILDREN'S HOSPITAL	2020	NHLBI	NHLBI	\$104,687	View
<input type="checkbox"/>	5	K99	NS112605	02		UNRAVELING STEM CELL BEHAVIORS UPON INJURY TO THE BRAIN	BAYIN, NERMIN SUMRU	SLOAN-KETTERING INST CAN RESEARCH	2020	NINDS	NINDS	\$94,068	View
<input type="checkbox"/>	1	K99	NS115984	01		EXPLORING NEW ROLES OF ROBO2 IN SYNAPTIC DEVELOPMENT, PLASTICITY AND HIPPOCAMPAL CIRCUIT FUNCTION	BLOCKUS, HEIKE MANUELA	COLUMBIA UNIVERSITY HEALTH SCIENCES	2020	NINDS	NINDS	\$119,523	View
<input type="checkbox"/>	5	K99	DA046522	02		NUCLEUS ACCUMBENS NEURONAL ENSEMBLES IN DRUGS AND NATURAL REWARDS SEEKING.	BOBADILLA, ANA CLARA	MEDICAL UNIVERSITY OF SOUTH CAROLINA	2020	NIDA	NIDA	\$188,525	View
<input type="checkbox"/>	5	K99	DK115895	02		ROLE OF NUCLEUS ACCUMBENS AND ITS GLUTAMATERGIC INPUTS IN HIGH-FAT INTAKE	CHRISTOFFEL, DANIEL JOSEPH	STANFORD UNIVERSITY	2019	NIDDK	NIDDK	\$90,000	View
<input type="checkbox"/>	5	K99	MH122228	02		VENTROMEDIAL PREFRONTAL CORTEX REGULATION OF FEAR MEMORY EXPRESSION	CUMMINGS, KIRSTIE ALYSSA	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	2020	NIMH	NIMH	\$108,093	View
<input type="checkbox"/>	3	K99	EY029326	02S1		SYNAPTIC AND INTRINSIC MECHANISMS UNDERLYING VISUAL CORTICAL ENHANCEMENT FOLLOWING RETINAL	FONG, MING-FAI	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	2020	NEI	NEI	\$70,650	View

art.csr.nih.gov

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PA-19-130: NIH Pathway to Independence Award (Parent K99/R00 - Independent Clini...Assisted Referral Tool (ART) v2019.11+

Center for
Scientific Review

Assisted Referral Tool (ART)
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ART Home >> SRG >> Report

☒ Animal Usage?

Enter application text and hit the Submit button to get a list of relevant study sections in two groups, "Strong" and "Possible". Within a group, study sections are listed alphabetically by the SRG acronym

TitleThe ALS-inducing Factors, TDP43 A315T and SOD1 G93A, Directly Affect an

Clear

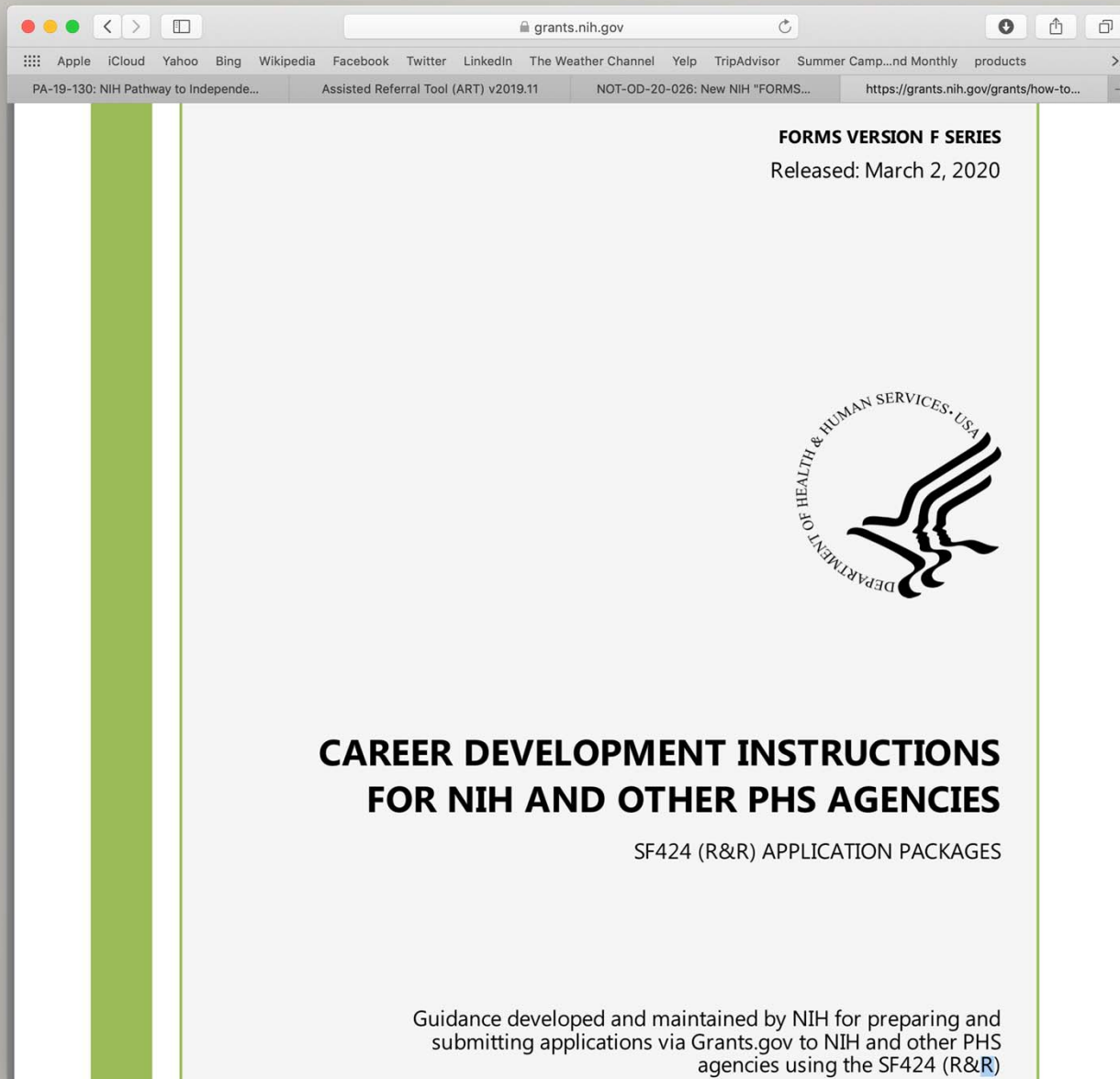
TDP43A315T or SOD1G93A grow neurites at a slower rate and elaborate fewer neuritic branches compared to control neurons. The presence of either ALS-causing mutant gene also sensitizes sensory neurons to vincristine, a microtubule inhibitor that causes axonal degeneration. Interestingly, these experiments revealed that cultured sensory neurons harboring TDP43A315T elaborate shorter and less complex neurites, and are more sensitive to vincristine compared to controls and to SOD1G93A expressing sensory neurons. Additionally, levels of two molecules involved in stress responses, ATF3 and PERK are significantly different between sensory neurons harboring TDP43A315T to those with SOD1G93A in vitro and in vivo. These findings demonstrate that sensory neurons are directly affected by two ALS-inducing factors, suggesting important roles for this neuronal subpopulation in ALS-related pathogenesis.

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Resubmit

[Report erroneous classification \(NIH only\)](#)

Relevance	SRG	IRG	Membership	Name
Strong	CMAD	CB	Roster	Cellular Mechanisms in Aging and Development Study Section
Strong	NDPR	MDCN	Roster	Neurodifferentiation, Plasticity, Regeneration and Rhythmicity Study Section
Strong	NOMD	MDCN	Roster	Neural Oxidative Metabolism and Death Study Section
Possible	CDIN	BDCN	Roster	Chronic Dysfunction and Integrative Neurodegeneration Study Section
Possible	CMND	MDCN	Roster	Cellular and Molecular Biology of Neurodegeneration Study Section
Possible	MNG	ETTN	Roster	Molecular Neurogenetics Study Section
Possible	SPS	IFCN	Roster	Somatosensory and Pain Systems Study Section
Possible	SYN	MDCN	Roster	Synapses, Cytoskeleton and Trafficking Study Section



1. Contact your department's grant specialist (Authorized Organizational Representative) to assist with the application
2. Download the application instructions
3. Get an NIH Commons Account

<https://grants.nih.gov/grants/how-to-apply-application-guide/forms-f/career-forms-f.pdf>

NIH Career Development Checklist – Forms E

- ☐ Cover Letter *(required for Mentored Career Development, generally 1 – 2 pages)*
- ☐ Project Summary/Abstract *(30 lines of text maximum)*
- ☐ Project Narrative *(2 or 3 sentences maximum)*
- ☐ Bibliography & References Cited
- ☐ Facilities & Other Resources
- ☐ Equipment
- ☐ Biographical Sketches – applicant and mentor/co-mentor(s) *(5 page limit)*
- ☐ Current and Pending Support *(mentor/co-mentor(s) only, 3 page limit for each)*
- ☐ Budget Justification
- ☐ Introduction to Application *(for resubmission only, 1 page limit)*
- ☐ Candidate Information and Goals for Career Development
- ☐ Specific Aims *(1 page limit)*
- ☐ Research Strategy *(12 page limit for both Research Strategy and Candidate Information and Goals for Career Development combined)*
- ☐ Progress Report Publication List *(renewal applications only – not applicable for career awards)*
- ☐ Training in Responsible Conduct of Research *(1 page limit)*
- ☐ Plans and Statements of Mentor and Co-Mentor(s) *(6 page limit)*
- ☐ Letters of Support from Collaborators, Contributors, and Consultants *(6 page limit)*
- ☐ Description of Institutional Environment *(1 page limit)*
- ☐ Institutional Commitment to Candidate's Research Career Development *(1 page limit)*
- ☐ Protection of Human Subjects *(if human subjects involved)*
- ☐ Data Safety Monitoring Plan *(if clinical trial)*
- ☐ Inclusion of Women and Minorities *(if human subjects involved)*
- ☐ Inclusion of Children *(if human subjects involved)*
- ☐ Vertebrate Animals *(if vertebrate animals used)*
- ☐ Select Agent Research *(if application involves the use of select agents)*
- ☐ Resource Sharing Plan
- ☐ Authentication of Key Biological and/or Chemical Resources *(1 page limit)*
- ☐ Appendix
- ☐ Inclusion Enrollment Report
- ☐ Assignment Request Form
- ☐ Reference Letters *(submitted via eRA Commons)*

K01/K07/K08/K18/K22/K23/K25/K43/K76/K99-R00 Review

Application #:

Principal Investigator(s):

OVERALL IMPACT

Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the proposed career development and research plan will enhance the candidate's potential for a productive, independent scientific research career in a health-related field, taking into in consideration of the following five scored review criteria, and additional review criteria. An application does not need to be strong in all categories to have a major impact.

Overall Impact Write a paragraph summarizing the factors that informed your Overall Impact score.

SCORED REVIEW CRITERIA

Reviewers will consider each of the five review criteria below in the determination of the candidate's qualifications, scientific and technical merit of the proposed research, career development plan, mentor's qualifications and mentoring plan, environment and institutional commitment to the candidate, and give a separate score for each.

1. Candidate

Strengths

Weaknesses

2. Career Development Plan/Career Goals & Objectives

Strengths

Weaknesses

3. Research Plan

Strengths

Weaknesses

4. Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)

Strengths

Weaknesses

5. Environment and Institutional Commitment to the Candidate

Strengths

Weaknesses

ADDITIONAL REVIEW CRITERIA

As applicable for the project proposed, reviewers will consider the following additional items in the determination of scientific and technical merit, but will not give separate scores for these items.

X A response for Protections for Human Subjects, Vertebrate Animals, and Biohazards is required from reviewers for all applications.

X A response for Inclusion of Women, Minorities and Children is required from reviewers for Human Subjects Research Applications.

Study Timeline (Specific to applications designated clinical trial on the electronic cover sheet)

Strengths

- NA

Weaknesses

- NA

Protections for Human Subjects

Acceptable Risks and Adequate Protections

Comments (Required Unless Not Applicable):

-

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only):

Not Applicable (No Clinical Trials)

Comments (Required Unless Not Applicable):

- Included but not required and flawed in detail provided.

Inclusion of Women, Minorities and Children Applicable Only for Human Subjects research and not IRB Exemption #4.

- Sex/Gender: Distribution justified scientifically
- Race/Ethnicity: Distribution justified scientifically
- For NIH-Defined Phase III trials, Plans for valid design and analysis: Not applicable
- Inclusion/Exclusion of Children under 18: Excluding ages <18; not justified scientifically

Comments (Required Unless Not Applicable):

- The justification for not including children is inadequate based on NIH policy.

DEVELOP A STRATEGY

- Identify mentor(s) and collaborators- discuss your project and career development needs, be sure they are on board
- Be sure your proposed project is *distinct* from your mentor's research and that the mentor is supportive of future independence
- Identify and notify referees to write reference letters
- Consider your strengths and areas for growth- do the individuals and training opportunities you have in mind complement your strengths and fuel this growth [why is the K appropriate?]

IDENTIFY INSTITUTIONAL RESOURCES

- Your Institution's OVPR/OSP website

Example: Go to the Brown BMRA website, under the GUIDANCE

tab <https://www.brown.edu/academics/biomed/offices-and-services/research-administration/guidance>

- Your Institution/Department/Center's grant resources

Example: Scroll down the table and you will find "Research Resources" for [Brown](#), [Care New England](#), [CORES RI](#), [Lifespan](#), [University of Rhode Island](#), and the [VA](#).

- I. OVERVIEW OF THE K AWARD
- II. GETTING STARTED
- III. WRITING AN EFFECTIVE APPLICATION

KEY APPLICATION COMPONENTS

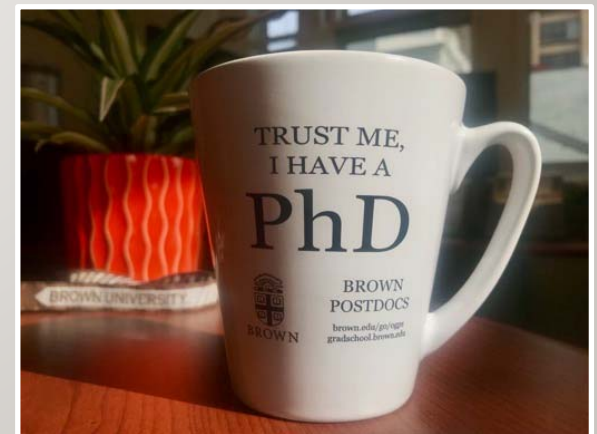
- Biosketch; Candidate Information and Goals for Career Development
- Plans and Statements of Mentor and Co-Mentors; Biosketches
- Institutional Environment & Commitment to the Candidate's Research and Career Development
- Specific Aims & Research Strategy

BIOSKETCH HIGHLIGHTS

- Personal statement – highlight relevant research experience and other qualifications for this K award
- Contributions to science – emphasize research publications or research products related to the K award
- Research support – ongoing and completed research projects
- Emphasize any existing collaboration with mentor(s)/collaborators

CANDIDATE INFORMATION

- Highlight important aspects of your career trajectory and commitment to an academic research career
- Research achievements, experience, and potential to successfully transition to independence
- Other relevant experience (leadership, teaching, mentoring)
- Collaborations (supported in letters)
- It is ok to repeat content from your Biosketch



CAREER GOALS AND OBJECTIVES, PLAN FOR CAREER DEVELOPMENT

- Explain what new research skills and enhanced knowledge you will gain. How does this fit with overall career goals and research direction?
- Identify other mechanisms for professional development (for-credit courses, workshops, conferences, networking)
- Include details of mentorship plan (duration and frequency of meetings)
- Provide a timeline for implementing career development plan (including future publications and awards)
- It should be clear how these goals align with your research strategy, and why mentored (K99) phase is needed

EXAMPLES

(AVAILABLE ON NIH WEBSITE)

[illegible]

EXAMPLES

(AVAILABLE ON NIH WEBSITE)

Meeting/Group	Frequency (Duration)	Description and Goals
Mentor meeting: Dr. Sterling	Weekly (60 minutes)	Individual meetings with mentor, co-mentor, and mentoring committees to guide and assess progress toward career development, educational, and research goals. Includes intensive discussion and feedback from senior faculty and elite researchers in health policy, epidemiology, and biostatistics at both Vanderbilt (<i>internal</i> advisory committee) and Johns Hopkins (<i>external</i> advisory committee). <i>Meetings with faculty at JHU will be held via teleconference/videoconference, except for semi-annual visits to Baltimore, MD.</i>
Co-Mentor meeting: Dr. Graves	Bi-Weekly (60 minutes)	
Internal Advisory Committee: Drs. Schaffner, Fonnesbeck, and Shepherd	Quarterly (90 minutes)	
External Advisory Committee: Drs. Holtgrave and Gange	Semi-Annual (90 minutes)	
Policy meetings: Dr. Cheever, Administrator of HRSA HIV/AIDS Bureau (and HRSA partners)	Quarterly (90 minutes)	In-person/teleconference meeting with federal policy makers with implementation of evidence-based policy specific to vulnerable HIV populations in their purview; will focus on practical implications and priorities of research for policy/programmatic changes.
Epidemiology/Outcomes Group (Vanderbilt)	Weekly (60 minutes)	Dr. Sterling leads this meeting of data abstractors, data managers, biostatisticians (including Dr. Shepherd), and epidemiologists involving discussion of ongoing research using the Vanderbilt Comprehensive Care Clinic cohort, and collaborations with various outside groups (e.g., NA-ACCORD, CCASAnet, TN DOH, et al.).
Health Policy Methodology (Vanderbilt) (continued)	Monthly (90 minutes)	Dr. Graves leads this meeting of health policy analysts, epidemiologists, and biostatisticians to explore solutions to methodologic issues in the use of epidemiologic cohort data to answer policy-oriented questions. As cohort data may not allow inference to the appropriate policy-impacted target population, weighting or calibration techniques may be developed to derive externally valid inferences.
NA-ACCORD	Monthly	Drs. Moore and Gange lead this meeting of data managers, analysts, investigators, epidemiologists, and coordinators of NA-

EXAMPLES

(AVAILABLE ON NIH WEBSITE)

development into an independent investigator.

Table 1. Mentoring Committee			
Name (Institution)	Associated Aims/Goals*	Meeting Frequency and Format	Area of Expertise and Role
Samir Shah, MD, MSCE (CCHMC, UC) [Primary Mentor]	Research: 1,2,3 Training: 1, 3, 4	Weekly meetings (and informally as needed, in person)	Expertise: Pediatric community-acquired pneumonia, infectious diseases, hospital medicine, clinical epidemiology, multicenter inpatient studies (Vice Chair of the PRIS Network), leadership skills Role: Primary mentor for pneumonia, career guidance, study design and execution, multicenter research
Maurizio Macaluso, MD, DrPH (CCHMC, UC) [Co-Mentor]	Research: 1,2,3 Training: 3,4	Monthly (in person)	Expertise: Advanced epidemiological methods, causal inference, molecular epidemiology Role: Career mentor, primary mentor for molecular epidemiology
Kathleen Stringer,	Research: 1,2,3 Training: 1, 3, 4	Every other week (by phone/Skype), in person at 3x/year	Expertise: quantitative NMR metabolomics, metabolomics study design and execution using biofluids including urine, statistical and

Candidate Information and Goals for Career Development

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Metabolomics Evaluation of the Etiology of Pneumonia

Lilliam Ambroggio, PhD, MPH

PharmD (UMichigan)			bioinformatics analysis aimed at identifying metabolites of biological relevance, inflammatory lung diseases Role: Primary mentor for metabolomics, onsite externship at University of Michigan (3 2-week visits in year 1)
Richard Ruddy, MD (CCHMC, UC)	Research: 1,2,3 Training: 1, 4	Monthly (in person)	Expertise: Multicenter pediatric emergency medicine research (nodal PI for PECARN), respiratory diseases in ED, leadership skills, Role: Content expertise for pediatric emergency medicine research, career guidance
Heidi Sucharew, PhD (CCHMC, UC)	Research: 1,2,3 Training: 2	Monthly (year 1 and 5, in person) Every other week (years 2-4, in person)	Expertise: Cluster analysis, functional data analysis with extension to large scale data such as metabolomics, latent class models Role: Statistical mentor on analysis of metabolomics dataset
Additional Collaborators (not on Mentoring Committee)			
Lindsey Romick-Rosendale, PhD	Research: 1,2,3 Training: 1	Every other week (Years 1-3, in person); Monthly with Dr. Stringer (Year 1-3); Monthly (Year 4-5)	Expertise: 6 years of NMR metabolomics experience, complex metabolic pathways involved in diseases/infections Role: CCHMC onsite metabolomics expert, guidance in study design, execution and interpretation of NMR metabolomics portion of the proposal
Assem Ziady, PhD	Research: 1,2,3 Training: 3	Monthly (Year 4-5, in person)	Expertise: Proteomic and metabolomics study studies using Liquid Chromatography Mass Spectrometry (LC/MS), inflammatory signaling in children with cystic fibrosis

MENTOR(S), COLLABORATOR(S), CONSULTANT(S)

Primary Mentor(s) must:

- Explain how they will contribute to your development
- Demonstrate commitment to meeting with you regularly, coordinating with mentorship team, annual assessment of progress
- Document sufficient independent research support to cover your project during the K99 phase
- Discuss the plans for transitioning you to independence by the end of the K award, including support during job search
- Provide details of research qualifications and previous experience as a mentor (including outcomes of mentees)

INSTITUTIONAL ENVIRONMENT & STATEMENT OF INSTITUTIONAL COMMITMENT

- Document a strong, well-established research and career development program related to the candidate's interests
- Experienced faculty, facilities and resources
- Opportunities for intellectual interactions, e.g., journal clubs, seminars, and presentations
- Commitment to the candidate's career development independent of the K award
- Adequate office and lab space, time (**75% effort**) and support to the candidate for the period of K award
- Availability of appropriate time and support for mentors, consistent with what has been proposed



SPECIFIC AIMS OF THE PROJECT

- State the problem or barrier to progress, why you can solve it, what's novel
- Avoid interdependent aims
- State hypothesis related to each aim, be sure it is testable with the time and resources you have for the award period
- May include a summary figure
- Last few sentences should concisely explain how this work will make a major contribution to the field, and how the research and training will impact your career development

RESEARCH STRATEGY

- Must span both phases of the K99/R00 award
- Say what you will accomplish during the mentored phase research that will enable you to launch an independent research program



RESEARCH STRATEGY

Significance:

- The importance of the problem you are trying to solve
- How existing concepts, methods, tools, technologies, treatments, or interventions may be impacted if the proposed aims are achieved

Innovation:

- How your proposed research will challenge or improve current research or clinical practice paradigms
- Novel theoretical concepts, approaches, methodologies, or interventions that may be developed or used

RESEARCH STRATEGY

Approach:

- Methods and analyses to test the hypotheses and accomplish the specific aims (attention to positive and negative controls or randomization where appropriate).
- Benchmarks for success anticipated to achieve the aims.
- Potential pitfalls and alternative strategies.
- Feasibility with the time and resources you have
- Rigorous experimental design – power calculations, sufficient N, biological variables, appropriate statistical tests and authentication of reagents.

EXAMPLES

SOME FINAL POINTERS

- Work on writing concisely (challenging page limits)
- Use graphics and figures, but must be readable
- Involve mentors and colleagues in editing/proofreading process
- Do not be overambitious, proposed work should be realistic
- Remember: all components must be coordinated to make a case for why this award will benefit your career and transition to independence



QUESTIONS?