Insights into Research Training and Career Development Opportunities through NIDDK

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Outline

• Moving From Ideas to Funding
• Supplemental Funding to Bridge Gaps
• Diversity Focused Initiatives

Take home messages:

• Contact your program officers!
• Don’t self eliminate (go for it)!
NIDDK-supported Training & Career Development Pathway

Medical/Grad School (Students)
- National Research Service Awards F30, F31 (individual) T32 (institutional)

Postgraduate (Postdocs, Fellows)
- National Research Service Awards F32 (individual) T32 (institutional)

Transition (Junior Faculty)
- Career Development Mentored Awards K01, K08, K23, K25, K99/R00 (individual)

PI (Faculty)
- Research Project Grants R01, U01, R03, R21 (individual)

Pilot and Feasibility, Mentoring
URG: Diabetes Research Centers, NORC, CFEDTR, BRIDGES U24

Institutional Physician Scientist Career Development (K12)

Loan repayment for clinical, pediatric, health disparities, critical research areas (bioinformatics, data science, physicians doing non-clinical research)
Take Home Comments

• Understand the mechanism you’re applying for – research grants vs. training or career development awards
  • Always read the entire Funding Opportunity Announcement (FOA) – purpose, guide notices, review criteria, etc., and follow all instructions.

• Program Officers are a resource to applicants
  • Contact early in the process - send biosketch and specific aims page.
  • Helpful to determine eligibility and responsiveness of proposal to the Institute or Center’s (IC’s) mission and priorities
  • Reach out after summary statement is released to discuss next steps

• Go for it – don’t self eliminate (and resubmit if needed)
Find Your Program Director(s)

Matchmaker Results
116 POs

Filters
- Active Projects
- Fiscal Years
- Agencies
- Activity Codes
- Program Officials
- Study Sections
- Disclaimer

Program Official | IC | Contact Information | Projects
---|---|---|---
ARREAZA-RUBIN, GUILLERMO | NIDDK | View Email | 65
SPAIN, LISA M | NIDDK |  | 48
RICE, JEFFREY S | NIAID |  | 36
WANG, XUJING | NIDDK |  |  |
Explore Funded Projects

PO/Program Official – SPAIN, LISA M
158 Active Projects

Projects
Publications Patents Clinical Studies News & More

T Act Project Year Sub Principal Investigator(s)/Project Leader(s) Organization Fiscal Year Admin IC Funding IC FY Total Cost by IC Similar Projects
Identifying and Reducing Disparities in Outcomes Among Economically Vulnerable and Minority Young Adults with Type 1 Diabetes
5K23DK115896–96 AGARWAL, SHIVANI ALBERT EINSTEIN COLLEGE OF MEDICINE 2022 NIDDK NIDDK $197,640 View

Diversity Supplement - Formulation to Generate Tolerance Towards Type 1 Diabetes
3R01DK138225–02 AINSLIE, KRISTY M UNIV OF NORTH CAROLINA CHAPEL HILL 2022 NIDDK NIDDK $110,072 View

Formulation to Generate Tolerance Towards Type 1 Diabetes
5R01DK138225–02 AINSLIE, KRISTY M UNIV OF NORTH CAROLINA CHAPEL HILL 2022 NIDDK NIDDK $381,816 View

Diabetes disparities in Latino subpopulations: linking biology to social epidemiology
5K08DK107791–95 ALBRECHT, SANDRA S COLUMBIA UNIVERSITY HEALTH SCIENCES 2020 NIDDK NIDDK $153,258 View

Diabetes disparities in Latino subpopulations: linking biology to social epidemiology
3K08DK107791–95 ALBRECHT, SANDRA S COLUMBIA UNIVERSITY HEALTH SCIENCES 2021 NIDDK NIDDK $63,326 View

REPORTER.NIH.GOV
Appreciate how NIH makes funding decisions

- Each IC within NIH is fairly autonomous with respect to funding policies (https://www.niddk.nih.gov/research-funding/process/award-funding-policy)
- Policies updated annually and most are posted on IC websites
- Most R01 and other grants are funded using a “payline,” (percentile), but all ICs have processes to consider grants for funding beyond the payline
- For K awards, NIDDK considers for funding scored applications within a range (no payline). Team effort!
Transition to faculty: K awards

• **K01** – Ph.D. (non-clinical doctorate) proposing basic or clinical research
• **K08** – M.D. proposing basic research
• **K23** – M.D. proposing clinical research
• **K25** – doctorate in quantitative science, proposing biomedical research
• **K99/R00** – Pathway to Independence; only option available to non-US citizens

WARNING: READ FOA and follow links to IC-Specific Information
Research Grants

• **R01**: “gold standard” hypothesis-driven, investigator-initiated, “Parent Announcement)

• **R03**: small, developmental grant

• **P01**: one principal investigator, at least one “core” and sub-projects centered on a common theme

• **RC2**: team project, resource development

**WARNING**: READ FOA carefully for IC-specific information!
Elements of a K proposal

• Candidate
• Career development plan
• Institutional commitment and sponsor’s letters
• Mentoring team
• Research plan
• **Other stuff**—reference letters, SABV, RCR, animals, HS, budget, authentication plan, etc...
NIH Funding Cycle: Know who (at NIH) to talk to when

START

Consult with a PD:
provide draft specific aims, biosketch

$ IC funds application

RI (re) submits application

Check Study Section Rosters, submit Assignment Request Form

NIH funding process, PO may consult with PI, Council review

priority score/percentile; or “not discussed”; summary statement prepared

CSR/IC RB receives and makes assignments

Assignment Request Form
https://public.csr.nih.gov/ForApplicants/SubmissionAndAssignment/RequestScientificReviewGroup

SRO assigns reviewers; reviews application

Summary Statement Released
https://www.niaid.nih.gov/grants-contracts/scoring-summary-statements
What if it the score is not great?

• Understand your summary statement and discuss it with colleagues and mentors. Take all the help you can get! Your harshest critic may be the most valuable.

• Discuss Summary Statement with your Program Officer. However:
  – We do not read between the lines, or report on verbal discussions, or comment on reviewer motivation
  – We can help you interpret reviewer statements (translate jargon), and help you identify opportunities for improvement

• Evaluate your options with mentors and program: resubmission, new app, different grant mechanism?
Questions?
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.

- Standard K99/R00
- MOSAIC K99/R00
MOSAIC Program to Promote Faculty Diversity

• MOSAIC uses funding, mentoring and educational opportunities to facilitate the transition of promising postdoctoral researchers from diverse backgrounds into independent, tenure-track or equivalent research-intensive faculty positions.

• Program priority is to address documented underrepresentation at the faculty level (e.g., see NIH’s Notice of Interest in Diversity).

• The MOSAIC K99/R00 program seeks to support early career scientists with demonstrated and compelling commitments and contributions to enhancing diversity in the biomedical sciences.

https://www.nigms.nih.gov/training/careerdev/Pages/MOSAIC.aspx
Early-stage investigator policies

• ESI definition (subset of New Investigator)
  – Within ten years of terminal research degree or end of post-graduate clinical training
  – Has not successfully competed as a PD/PI for a substantial NIH research award
• Prioritized for support at NIH
  – Most ICs have better paylines for ESIs (NIDDK current 25% vs 16%)
  – NI/ESIs clustered during review
• Applies to R01 (or equivalent) funding
• Also a more favorable payline for the first renewal of a grant which was obtained during the ESI period.
Small R01s for Clinical Trials Targeting Diseases within the Mission of NIDDK (R01 Clinical Trial Required)


- **Funding for pilot and feasibility clinical trials** that lay the foundation for larger clinical trials related to the prevention and/or treatment of diseases and conditions within the mission of NIDDK.
- Small, short-term proof-of-concept clinical trials, preliminary data on effects of the intervention, and feasibility (recruitment and retention)
- Need to have a high likelihood that the trial findings will lead to more definitive, hypothesis-driven trials which have the potential to impact clinical practice and/or public health.
- **Preliminary data regarding intervention efficacy are not required.**
Small Grants for New Investigators to Promote Diversity (R21)

- **PAR-21-313** - Small Grants for New Investigators to Promote Diversity in Health-Related Research (R21 Clinical Trial Optional)

- Eligibility Requirements:
  - 1) New investigator, 2) Eligible doctoral degree, 3) Citizen or permanent resident, 4) Diverse background ([NOT-OD-20-031](#))

- Application Review
  - Three pay plans per fiscal year

- NIDDK Program Contact: [Katrina Serrano, PhD](#)
NIH Loan Repayment

2-year Research Commitment

Up to $50,000/year

New: ASSIST and REACH

LRP Resources

Check Extramural LRP Application Deadline
New Programs for Life Critical Events

- For the purposes of these programs, childbirth, adoption, and primary caregiving responsibilities of an ailing spouse, child, partner, or a member of the immediate family during the project period are critical life events that would qualify for consideration. A description of how the critical life event will affect advancement of the award or productivity must be provided.

- Supplemental funds up to $50,000 in direct costs for up to one year will be used to mitigate delays and/or interruptions in research progress:
  - Administrative Supplements to Promote Research Continuity and Retention of NIH Mentored Career Development (K) Award Recipients (NOT-OD-20-054)
  - Administrative Supplement for Continuity of Biomedical and Behavioral Research Among First-Time Recipients of NIH Research Project Grant Awards (NOT-OD-20-055)
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

**ECR Qualifications:**

- at least 1 year of experience as a fulltime faculty (Assistant Professor)
- at least 1 senior-authored research publication in a peer-reviewed journal in the last 2 years (in press considered)
- You must have submitted a grant proposal, in the PI/PD role, to the NIH and received the associated summary statement.
- You have not held an R01 or R01-equivalent (R35, R37, RF1, R23, R29, DP1, DP2, DP5, U01, RL1) grant in the PD/PI role

[https://public.csr.nih.gov/ForReviewers/BecomeARevieuer/ECR](https://public.csr.nih.gov/ForReviewers/BecomeARevieuer/ECR)
Diversity Supplement Program: What Is It?

- An administrative supplement to an existing research project grant to enhance the diversity of the research workforce

- Administrative supplements are often used to achieve certain new research objectives

- The goal is to **recruit and retain** students, post-doctorates, and eligible investigators from diverse backgrounds, including those from groups that have been shown to be underrepresented in health-related research.

- Works towards the NIH’s goal of fostering diversity in the scientific research workforce as stated in the NIH’s published diversity statement ([NOT-OD-20-031](https://example.com))

- “Scientists and trainees from diverse backgrounds and life experiences *bring different perspectives, creativity, and individual enterprise* to address complex scientific problems”
NIDDK-Led Travel Awards Program

These programs provide early career individuals from diverse backgrounds who are interested in academic medicine to attend the association’s annual conference and an NIDDK-led Academic Career Development Workshop.
Goals:

• Encourage underrepresented minority investigators to choose a career in NIDDK mission areas
• Facilitate mentoring of junior investigators by experienced and accomplished researchers

http://nmri.niddk.nih.gov/
Submit Early!

- We recommend you submit early - *at least* 2 days before the due date. Submitting early provides time to track your application, **correct any errors and view your application by the due date.**
Please Contact Program Officers!

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 & priorities
- Different budgets
- Different ways of deciding which grants to fund.

There are lots of opportunities – go for it!
Thank you