Getting Your Great Ideas Funded

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Your first grant application

• Overwhelming

• Anxiety-provoking

• Pit of Despair
You’ll need the right tools

• Skillset
• Mentors/advisors
• Realistic timeline
• Niche
• Perseverance
Understand the funder: NIH

NIH’s mission is to seek fundamental knowledge about the nature and behavior of living systems and to apply that knowledge to enhance health, lengthen life, and reduce illness and disability.

• Foster fundamental discoveries
• Develop and maintain human and physical resources
• Expand knowledge base in medical science
• Promote highest level of scientific integrity, accountability, and social responsibility

NIH Strategic Plan: https://bit.ly/3fd9brz
NIH Consists of 27 Institutes and Centers

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To support and conduct research to combat diabetes and other endocrine and metabolic diseases, liver and other digestive diseases, nutritional disorders, obesity, and kidney, urologic and hematologic diseases.
Know who to talk to when

START

PI (re) submits application

CSR/IC RB receives and makes assignments

SRO assigns reviewers; reviews application

PI consults with PO

IC funds application

priority score/percentile; or “not discussed”; summary statement prepared
Who do you call?
RePorter/Matchmaker Tool

https://reporter.nih.gov/matchmaker
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)
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
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...
• **Who are you and why are you here?**
  
  – Your research background
  – Why interested in this area of research?
  – Any particular/special influences, personal or professional, that brought you to research?
  – Be direct, succinct, but not afraid of some self-promotion!
  – Can use personal statement in biographical sketch to detail any extenuating circumstances
  – Institutional position title not really important, late post-doc to tenure-track Assistant Professor (CAUTION: check eligibility)
Career Development Plans

- Takes you from point A to point B (independence)
- No Cookie cutter
- Should be **tailored** to address your specific needs and goals—think personal strategic plan, integrated with research goals
- Should be more than the usual routine
  - Coursework, if necessary
  - Grant-writing workshops/professional development
- Your plan should agree with your mentor’s plans for you!
- K99 applications must explicitly address the plan from transition to R00
Mentoring Team

- Track record of successful mentoring and research
- Committed to you & your career goals
- Can have mentors who are not your research advisor
- Co-mentors are OK!
- Should have $$ (primarily important for primary mentor and if the project will require supplementation)
- Supports and defines your pathway to independence
- Be specific about your interactions with mentors
Institutional commitment

- Should come from Dean/Department chair
- Confirms protected research time (explicitly stated for clinicians)
- Supports your professional development, but must not state that promotion is contingent on K award
- Consistent with mentor’s letters and the career development plan

NIDDK K awards are for late post-doc through tenure-track Assistant Professor, so level of institutional commitment will vary!! Accounted for in review and by program.
• Just because something is “not known” doesn’t necessarily make it significant. What will be the impact of the results on the field?
Approach

• Consider not only technical pitfalls and alternatives, but conceptual ones as well (what if I’m wrong?)
• Vertebrate Animals: concise description of procedures, justification for species, total numbers of animals used, minimization of pain and distress. Do not put Research Strategy details like power calculations here!
• Human subjects: pay attention to inclusion of gender/minority/age-span
• Biohazards: don’t forget!
• Authentication of key biological and chemical resources
• Best reference is the 424 Instruction Guide
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.
Training in the Responsible Conduct of Research (RCR)

- Not directly scorable, but is related to rigor, and will hold up award if “unacceptable”
- Should include your training to be a trainer of others in RCR (part of your transition to independence).
Administrative Concerns must be cleared up before award: Find these at the end of your Summary Statement

Protections for Human Subjects:
Inclusion of Women, Minorities and Children:
Vertebrate Animals:
Biohazards:
Resource Sharing:
RCR
Authentication Plan
Budget:
  IRG cuts: can be reversed by Council, if Program Officer agrees the cuts are not warranted
  Administrative cuts: occur on top of IRG cuts
What if it the score is not great?

- Take a breath. Your dog still loves you.
- 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 SS 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?
RFAs vs. PAR vs. NOSI

• **Request for Application:** Identifies a more narrowly defined area for which one or more NIH institutes have set aside funds for awarding grants. Usually has specific receipt date(s) (received on or before)

• **Program Announcements PA/PAR:** Identifies areas of increased priority and/or emphasis for a specific area of science (specific receipt dates)

• **Notice of Special Interest:** Describes a specific topic an IC is interested in supporting, such as a particular area of research or program, and directs to a FOA.
• 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
  – NI/ESIs clustered during review
• Applies to R01 (or equivalent) funding
• Also a more favorable payline for the first renewal of a grant obtained during ESI period.