The nuts and bolts of getting your research funded by NIH

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Ileana Hancu, Ph.D.
Image Guided Interventions Branch
Cancer Imaging Program
Division of Cancer Treatment and Diagnosis, NCI/NIH
• Start planning early
• Apply for the right opportunities and contact appropriate program staff early
• Present ideas clearly
• What to do after review
Lifecycle of a Grant application & Whom should I talk to?

Program Director
- Advises on funding opportunities and requirements for applications
- Observes review meetings and helps PI interpret summary statements
- Approves funding and monitors scientific progress
- Anticipates future scientific directions, assesses research gaps and opportunities

Grants Management Officer/Specialist (GMO/GMS)
- Prepares and issues awards
- Interprets and ensures compliance with grant policies
- Reviews grant business activities

Scientific Review Officer
- Manages, coordinates and conducts initial peer review
- Ensures fairness and administrative compliance of applications
- Prepares summary statements

grants.nih.gov/grants/grants_process.htm
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Your grant could be funded by one of 24 NIH’s Institutes or Centers

- Office of the Director
  - National Institute on Aging
  - National Institute on Alcohol Abuse and Alcoholism
  - National Institute of Allergy and Infectious Diseases
  - National Institute of Arthritis and Musculoskeletal and Skin Diseases
  - National Cancer Institute
  - Eunice Kennedy Shriver National Institute of Child Health and Human Development
    - National Institute on Deafness and Other Communication Disorders
    - National Institute of Dental and Craniofacial Research
    - National Institute of Diabetes and Digestive and Kidney Diseases
    - National Institute on Drug Abuse
    - National Institute of Environmental Health Sciences
    - National Eye Institute
      - National Institute of General Medical Sciences
        - National Heart, Lung, and Blood Institute
        - National Human Genome Research Institute
      - National Institute of Mental Health
      - National Institute of Neurological Disorders and Stroke
      - National Institute of Nursing Research
    - National Institute of Biomedical Imaging and Bioengineering
    - National Center for Complementary and Integrative Health
    - John E. Fogarty International Center
    - National Center for Advancing Translational Research
  - National Library of Medicine
  - National Institute on Minority Health and Health Disparities
    - Clinical Center
    - Center for Information Technology
    - Center for Scientific Review
Find your application’s funding home

• Search RePORTER ([reporter.nih.gov](http://reporter.nih.gov)) by keyword to find the projects most similar to yours
  – Identify the Program Officials (POs) who are associated with these projects

• Find a Funding Opportunity Announcement (FOA) that Fits Your Research (search by keyword)
  – [https://grants.nih.gov/funding/index.htm](https://grants.nih.gov/funding/index.htm)

• Call the target PO, discuss
  – Your idea (provide specific aims page)
  – Fit (is idea fit for institute or center (IC))
  – FOA
  – Funding mechanisms the IC supports
Early career funding mechanisms

Individual awards
- Career Transition Awards (F99/K00)
  - Fellowships (F)
  - Career Awards (K)
- Career Transition Awards (K99/R00)*
- Fellowships (F)
- Career Awards (K)
- Fellowships (F)
- Career Awards (K)

Institutional awards
- Mentored Research Training (T32, T90/R90)

Research Supplements to Promote Diversity

https://researchtraining.nih.gov/career-path
K99/R00: Pathway to independence award

- Facilitate transition of outstanding postdoctoral researchers with a PhD or MD degree from mentored, postdoctoral research positions to independent, tenure-track or equivalent faculty positions

- Eligibility: Any qualified individual, < 4 years of post-doc. US institutions, small and large businesses, non-governmental agencies etc
  - Having held an independent NIH award (R03, R21, R01), or a training award (K01, K07, K08, K23, K25) disqualifies a candidate. Must be on a non-tenure track at time of application.

- Notable participating institutions: NCI, NHLBI, NIBIB, NINDS. Almost all institutes participate.

- The applicant needs to identify a mentor (who will supervise the training and research experience) for the K99 phase-- an active investigator in the area of the proposed research

- Funding covers salary (min 75% dedicated to research). Up to 2 years of K99, up to 3 years of R00

- Success rate of 10-45% (depending on IC)**

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*https://grants.nih.gov/grants/guide/pa-files/PA-20-188.html
**https://report.nih.gov/reports/catalog#/
## Mid-late career funding mechanisms

<table>
<thead>
<tr>
<th>Type</th>
<th>Supports</th>
<th>Notes</th>
<th>Institution</th>
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<tbody>
<tr>
<td>R21</td>
<td>Exploratory and developmental research grant</td>
<td>• Limited or no preliminary data&lt;br&gt;• Each institute may have its own PA&lt;br&gt;• Up to $275k (direct costs) total over 2 years</td>
<td>US and/or Foreign</td>
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<tr>
<td>R21 trailblazer</td>
<td>Exploratory and developmental research grant</td>
<td>• <strong>NIBIB and NIA alone</strong>&lt;br&gt;• Limited to early-stage investigators and new investigator applicants&lt;br&gt;• <strong>Max of ½ page/ 1 figure with preliminary data</strong>&lt;br&gt;• Up to $400k (direct costs) total over 3 years</td>
<td>US</td>
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<tr>
<td>R01</td>
<td>Established research grant</td>
<td>• Significant preliminary data expected&lt;br&gt;• Multiple FOA’s available&lt;br&gt;• Up to $500k (direct costs)/year times 4/5 years</td>
<td>US and/or Foreign</td>
</tr>
<tr>
<td>U01</td>
<td>Established research–cooperative agreement</td>
<td>• Significant preliminary data expected&lt;br&gt;• Multiple FOA’s available&lt;br&gt;• Up to $500k (direct costs)/year times 4/5 years</td>
<td>US and/or Foreign</td>
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<tr>
<td>P01</td>
<td>Program project applications</td>
<td>• Multi-disciplinary, multi-component projects (at least 3 component; administrative core&lt;br&gt;• Multiple FOA’s available&lt;br&gt;• Up to $2000k (direct costs)/year times 5 years</td>
<td>US</td>
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Katz R01: a good option for early career investigators

- **Grant mechanism named** in honor of the late National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Director, Stephen I. Katz, M.D., Ph.D

- **Standard R01 mechanism** (up to $500k/yr in direct costs for up to 5 years)
  - Intended for early-stage investigators
  - *Research needs to represent a change in direction for the PI* (or for ALL MPI’s, if MPI’s)
  - No preliminary data required or accepted!

- **Most (but not all) institutes participate in at least one of the Katz FOA’s. NCI, NIBIB, NHLBI, e.g. do.**

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Write a Winning Application

- Read instructions on the application form
- Define research needs and develop testable hypothesis with quantifiable outcomes
  - Spell everything out clearly. Reviewers do not read your mind. Do not assume they read between the lines or know what you intend!
- Design research strategy, build research team
- Discuss potential problem areas and possible solutions
- Justify your numbers
- Get letters of support
- Draft and seek feedback, polish
• Start planning early
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After review

• Read and re-read the summary statement
• Contact your program officer and be prepared to discuss:
  o Reviewer comments from summary statement
  o Scores and percentiles
  o Funding prospects
  o Resubmission and other options
Volunteer to be a reviewer!

- Better understand the review process
- Improve your own grant writing skills by getting an insider’s view of how grant applications are evaluated

- Early Career Reviewer program
  
  [https://public.csr.nih.gov/ForReviewers/BecomeARReviewer/ECR](https://public.csr.nih.gov/ForReviewers/BecomeARReviewer/ECR)

  - At least 1 year of experience as a fulltime faculty member/researcher in a similar role (Assistant Professor or equivalent) role.
  - At least 1 senior-authored research publication in a peer-reviewed journal in the last 2 years plus at least 1 additional senior-authored research publication since receiving a doctorate.
  - Have submitted a grant proposal, in the PI/PD role, to the NIH and received the associated summary statement.
  - Have not reviewed before and do not hold an R01 (or R01 equivalent) grant
THANK YOU

Later questions: feel free to contact me @ ileana.hancu@nih.gov