

# Research funding at NIH: Statistical methods research funding at NIAID.

## Joint Statistical Meeting

July 29, 2018  
Vancouver, Canada

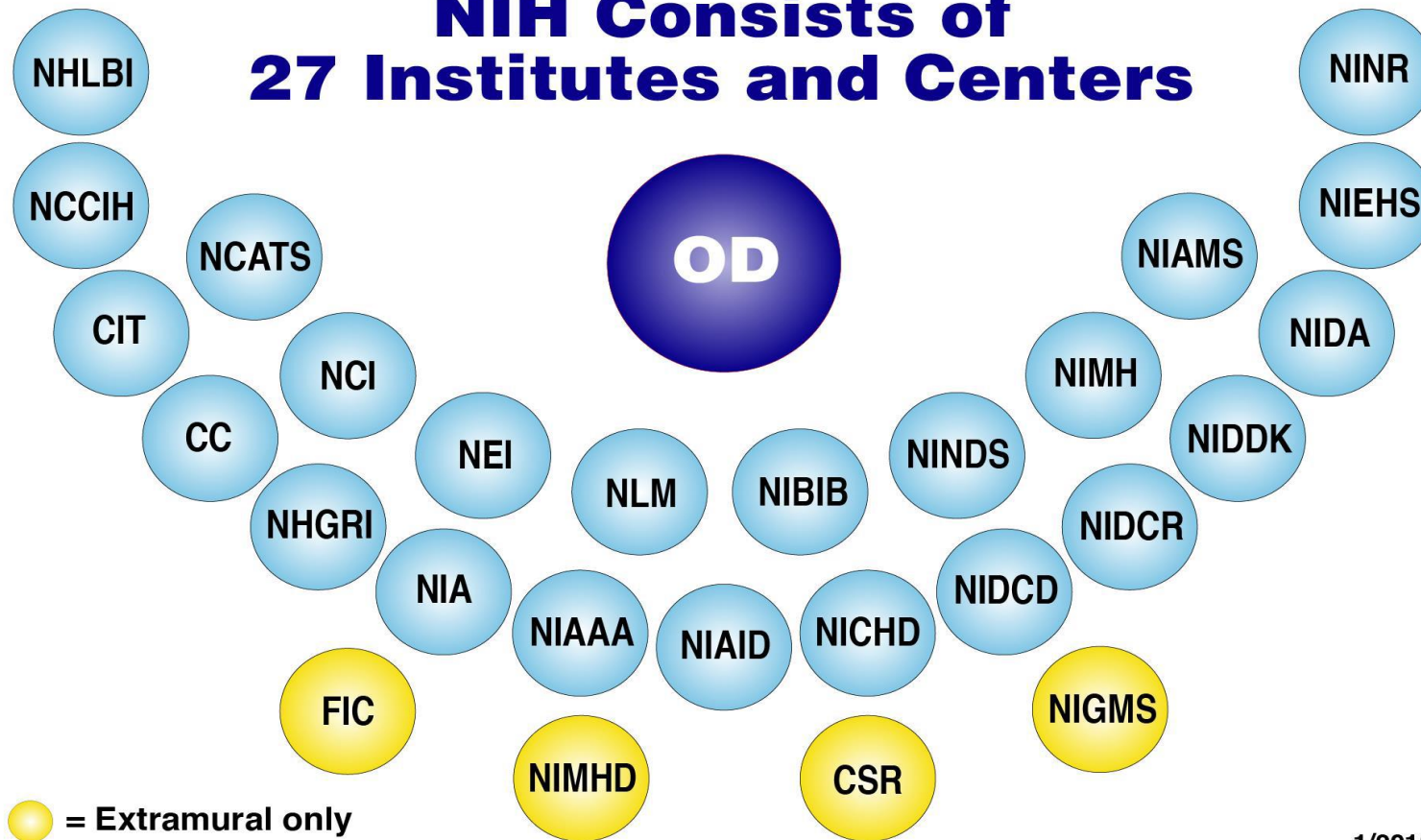
NIAID





# NIH ICs

## NIH Consists of 27 Institutes and Centers



1/2015

NIAID

# National Institutes of Health



- NIH has 27 institutes and centers, each with its own research focus. See where your research might fit.
- Institutes (21)
  - Disease specific Institutes (20).
    - E.g. NIAID, NCI, NHLBI, ...
  - General biomedical research
    - National Institute of General Medical Sciences (NIGMS).
- Centers (6)
  - Fogarty International Center.
    - International (Global health) research and training activities
  - Center for Scientific Review.
    - Grant submission and review

# Pre-submission

## Is your research appropriate NIH?



- Is your research related to NIH's mission?
- **NIH Mission:**
  - To seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
  - <http://www.nih.gov/about/mission.htm>
- Is your proposal disease specific?
  - Explore potential ICs <http://www.nih.gov/icd/>
- Ex. **NIAID** (missions, strategic planning)
  - <https://www.niaid.nih.gov/research/role>



# Preparing for grant submission

- **Unsolicited: Investigator Initiated grants**
  - Investigator-initiated means you create an application in any area of science NIH supports.
    - General: [Parent Program Announcements](#)
  
- **Solicited: NIAID - Requested Research**
  - When NIAID solicits targeted research, you get to choose your project—but you're limited to the topics specified in the funding opportunity announcement.
    - Request for application (RFA),
    - Program Announcement (PA, PAR).

# Preparing for grant submission available information



- NIAID Pas and RFAs (funding opportunities) updated weekly
  - [Opportunities List](#)
- Subscribe (weekly updates):
  - [https://grants.nih.gov/grants/guide/listserv\\_dev.htm](https://grants.nih.gov/grants/guide/listserv_dev.htm)
- Glimpse future initiatives (Concepts). Latest concept posted is from June 2018
- <https://www.niaid.nih.gov/grants-contracts/potential-opportunities>

# Preparing for grant submission

## Available information



- Use NIH databases to learn about emerging trends in funded research, find collaborators.
  - Reporter: <https://www.niaid.nih.gov/grants-contracts/reporter>
  - Matchmaker: [Matchmaker \(link is external\)](#) function lets you paste in text, gives you a list of up to 100 similar projects.
- Sample funded applications and summary statements: <https://www.niaid.nih.gov/grants-contracts/sample-applications>



# Preparing submission

## Contact Program Officer



- Contact a program officer (PO)
  - Look for program officer in the IC of your interest
  
- Consult Program Officer (PO) for
  - current scientific research interest of Institutes and centers (ICs)
  - Selecting appropriate grant mechanisms and its use in the particular institute.
  - knowing about different study sections

# Preparing for grant submission (Grant Mechanisms)



- **Select grant mechanism, make sure the relevant NIH institution accepts that mechanism**
  - R: research grants
  - P: research program project (multidisciplinary)
  - K: research career development
  - F: research fellowships
  - T: research training grants
  - [http://grants.nih.gov/grants/funding/funding\\_program.htm](http://grants.nih.gov/grants/funding/funding_program.htm)

# Preparing for grant submission (Small grants Vs R01)



- R03 limited funding for short period of time (pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data...)
- R21 is useful if you don't have preliminary data and feel you are not yet competitive with other R01 applicants. Encourages new, exploratory and development research project.
- However, if you have preliminary data/result that can support your research hypothesis, you should go straight for the R01 (Research project grant).

# Preparing for grant submission (Early Stage Investigators funding)



- **K99/R00** (NIH Pathway to Independence)
- $\leq 5$  yrs. from terminal degree, 2 phases
  - Phase 1 (K99): mentored support, 1-2 years (e.g. post-doc)
  - Phase 2 (R00): independent support, 2-3 yrs.; contingent on securing independent research position (e.g. assistant professor)
  - Work towards preparing an R01 application

# Preparing for grant submission (not ready for independent support?)



- If you are not ready for independent support:
  - Become part of someone else's grant or
  - Apply for training or career award
    - T32 (institutional award, pre-doc, post-doc)
    - K25 (career development): Supports junior faculty-level investigators with quantitative background to integrate their expertise with biomedicine.  
Mentored study and research

# Selected Topics from NIAID Statistical Methods Portfolio



- Statistical methods for evaluating vaccine efficacy.
- Mathematical and experimental models for HIV dynamics.
- Bayesian Modeling and Data Integration in Infectious Disease Phylodynamics
- Causal inference in infectious disease prevention studies.

# Grant Submission (submission dates and study sections)



- Standard submission dates
- <https://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm>
- Study section and IC assignment - CSR
  - BMRD: Biostatistical Methods and Research Design
- List of NIH study sections  
<https://public.csr.nih.gov/StudySections/Standing/Pages/default.aspx>  
<https://public.csr.nih.gov/StudySections/Standing/Pages/default.aspx>

# Submission Dates (Eg. R01 grant mechanism)



	<b>Cycle I AIDS/Others</b>	<b>Cycle II AIDS/Others</b>	<b>Cycle III AIDS/Others</b>
<b>Submission date</b>	<b>May 7/ March 5</b>	<b>September 7/ June 5</b>	<b>January 7/ October 5</b>
<b>Scientific Merit Review</b>	<b>June - July</b>	<b>October - November</b>	<b>February - March</b>
<b>Advisory Council Review</b>	<b>September - October</b>	<b>January - February</b>	<b>May - June</b>
<b>Earliest Project Start Date</b>	<b>December</b>	<b>April</b>	<b>July</b>



# Reviews



## ■ Reviews

- 1<sup>st</sup> Level Peer Review, Scientific Merit
  - Study Sections: Scientific experts (3-4 reviewers, statistical methods grants, at least one subject matter reviewer).
- 2<sup>nd</sup> Level Peer review: Funding recommendation
  - National Advisory Council: Scientific experts, Division Directors and Advocacy organization representatives.

# What determines which awards are funded?



- **Scientific Merit (Study section result).**
- **Program and/or Policy considerations**
- **Availability of funds**



# Beyond funding decision

- If grant is determined fundable:
  - Grant management specialist sends a note
  - PIs submit JIT documents on time
  
- If grant determined not fundable
  - Read summary statement carefully. Talk to your Program Officer (PO).
  - If reviewers concern is fixable then revise and resubmit
  - If concern is not fixable then re-evaluate
    - If substantial change needed then submit a new application
    - look for funding outside NIH (NSF, CDC,...)



# Summary

- Useful resources
  - Investigators in your institutions who have funded NIH grants
  - NIH CSR contact: Scientific Review Officer
  - ICs Program Contacts:
    - NIAID statistical methods grants contact
    - Misrak Gezmu, [mgezmu@niaid.nih.gov](mailto:mgezmu@niaid.nih.gov)
  - NIH's and different IC's websites:
    - <https://www.nih.gov/institutes-nih>



Thank you