

NIH Grant Basics for MDF Fellows

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Division of Musculoskeletal Diseases
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National Institute of
Arthritis and Musculoskeletal
and Skin Diseases

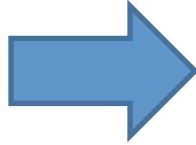
National Institutes of Health

- 27 different Institutes and Centers (ICs)
- ~\$32 billion annual budget
- 80% of funding goes to extramural competitive research grants
- Main ICs supporting muscle disorder research
 - National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
 - National Institute of Neurological Disorders and Stroke (NINDS)
 - To a lesser extent: *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), National Heart, Lung, and Blood Institute (NHLBI)

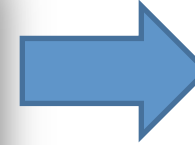


The Grant Process

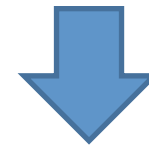
Idea



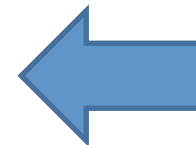
Funding Opportunity
Announcement (FOA)



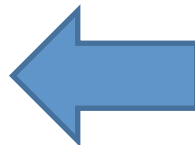
Prepare
Application



Submit
Application



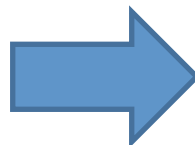
Study Section Peer Review
for Scientific Merit



IC Advisory Council
Recommendation



IC Director makes
final funding
decision



Notice of Award



Idea

- Think about impact
 - NIH Definition: “The likelihood for the project to exert a sustained, powerful influence of the research field(s)
 - Filling an important gap in the field? Muscular Dystrophy Coordinating Committee (MDCC) 2015 Action Plan objective?
- Consult with colleagues, mentors, peers
- At this point, have a rough idea of what a specific aims page would like

Funding Opportunity Announcements

- Every application submitted to NIH must be through a Funding Opportunity Announcement (FOA)
- How to find FOAs: NIH Guide

Grants.nih.gov/searchGuide/
Can also setup email alerts

Example of an FOA

The screenshot shows the NIH Guide to Grants and Contracts website. The header includes the NIH logo and navigation tabs: HOME, ABOUT GRANTS, FUNDING, POLICY & COMPLIANCE, NEWS & EVENTS, and ABOUT OIG. The main heading is "NIH Guide to Grants and Contracts". Below this, there is a search bar and a table of results. The table has columns for Title, FOA Number, Organization, Released, Expires, and Activity Code. The results are filtered to show 1 to 25 of 1042 results.

Title	FOA Number	Organization	Released	Expires	Activity Code
Support of NIGMS Program Project Grants (P01)	PAR-16-433	NIGMS	09-12-2016	09-08-2018	P01
Developing Measures of Shared Decision Making (R01)	PA-16-424	AHRQ	09-08-2016	02-05-2022	R01
Symptom Management in HIV-infected Individuals with Comorbid Conditions (R01)	PA-16-427	NINR	09-08-2016	01-08-2020	R01
Symptom Management in HIV-infected Individuals with Comorbid Conditions (R21)	PA-16-429	NINR	09-08-2016	01-08-2020	R21
Health Promotion Among Racial and Ethnic Minority Males (R01)	PA-16-428	NINR	09-08-2016	01-08-2020	R01

The screenshot shows the Department of Health and Human Services Part 1. Overview Information page for a funding opportunity. The page includes sections for Participating Organization(s), Components of Participating Organizations, Funding Opportunity Title, Activity Code, Announcement Type, and Related Notices.

Department of Health and Human Services
Part 1. Overview Information

Participating Organization(s)
National Institutes of Health (NIH)

Components of Participating Organizations
National Cancer Institute (NCI)
National Eye Institute (NEI)
National Heart, Lung, and Blood Institute (NHLBI)
National Human Genome Research Institute (NHGRI)
National Institute on Aging (NIA)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
National Institute of Biomedical Imaging and Bioengineering (NIBIB)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
National Institute on Deafness and Other Communication Disorders (NIDCD)
National Institute of Dental and Craniofacial Research (NIDCR)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
National Institute on Drug Abuse (NIDA)
National Institute of Environmental Health Sciences (NIEHS)
National Institute of General Medical Sciences (NIGMS)
National Institute of Mental Health (NIMH)
National Institute of Neurological Disorders and Stroke (NINDS)
National Institute of Nursing Research (NINR)
National Institute on Minority Health and Health Disparities (NIMHD)
National Library of Medicine (NLM)
National Center for Complementary and Integrative Health (NCCIH)
Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (OIRP)

Funding Opportunity Title
NIH Research Project Grant (Parent R01)

Activity Code
R01 Research Project Grant

Announcement Type
Renewal of PA-16-002

Related Notices
• August 25, 2015 - New NHLBI Policy Investigator-Initiated Single-Site Clinical Trials (Phase I and beyond): See Notice NOT-NS-15-338
• July 20, 2015 - NINDS Policy for Submission of Applications Containing Clinical Trials: See Notice NOT-NS-15-034

FOAs (Con't)

- Types of Funding Opportunity Announcements (FOAs)
 - **Parent Announcement (PA)**
 - Investigator-initiated application, normal study section (percentiled), standard receipt dates
 - **Focused Program Announcements (PA)**
 - IC-solicited to encourage applications on a particular topic, normal study section (percentiled), standard receipt dates, may receive institute priority
 - **Program Announcement with Special Review (PAR)**
 - IC-solicited to encourage applications on a particular topic or area, special study section (not percentiled), special receipt date
 - **Request for Applications (RFA)**
 - IC-solicited, special study section (not percentiled), usually just *one* receipt date total

NIH RePORTER and Matchmaker

- Take advantage of NIH's "big data" to help guide you

NIH RePORTER main page showing navigation links and search options. The 'MATCHMAKER' link is highlighted with a red circle.

Matchmaker interface showing instructions to enter a text search and a 'SUMMIT' button.

Matchmaker Results

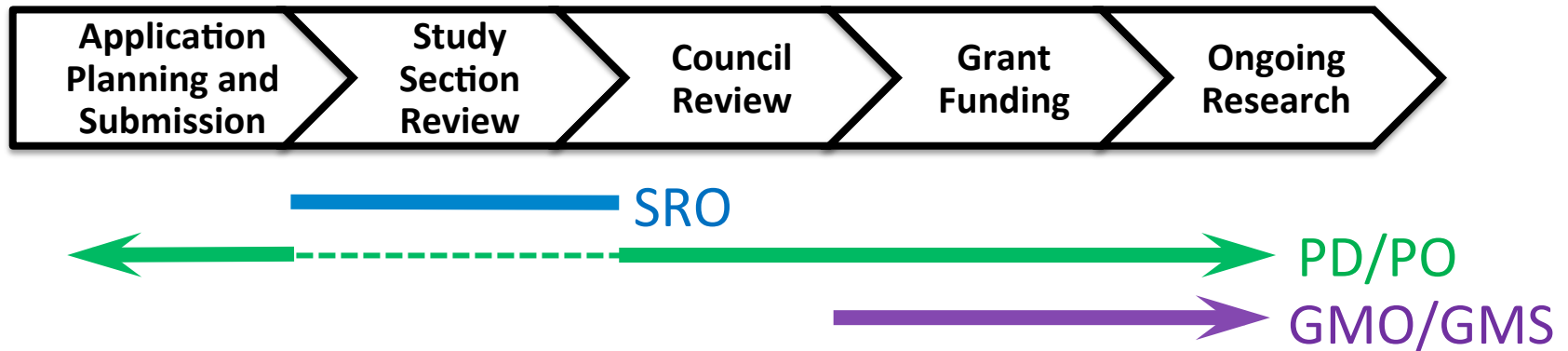


- Note:** these tools are not perfect, but can help give you ideas

FOAs, Activity Codes, IC Fit?

- What FOA should I apply under?
- What activity code? R01? R21? R03? What do all these mean?
- Never a bad idea to contact your program officer – your primary contact at NIH
- What's a program officer? What's a scientific review officer? Who should I contact and when?

Your Partners at NIH



Scientific Review Officer (SRO)

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

Grants Management Officer / Specialist (GMO/GMS)

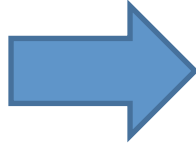
- Sets up and issues awards
- Interprets and ensures compliance with grant policies
- Reviews grant business activities

Program Director / Officer (PD/PO)

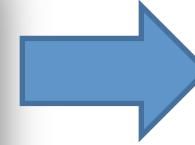
- Advises on funding opportunities and requirements for applications
- Observes review meetings and interprets summary statements
- Approves funding and monitors scientific progress
- Anticipates future scientific directions, assesses research needs and opportunities

The Grant Process

Idea



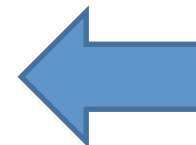
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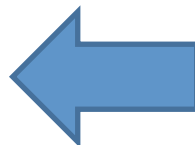
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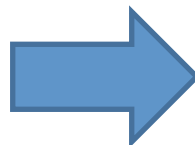
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Council Review



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Notice of Award

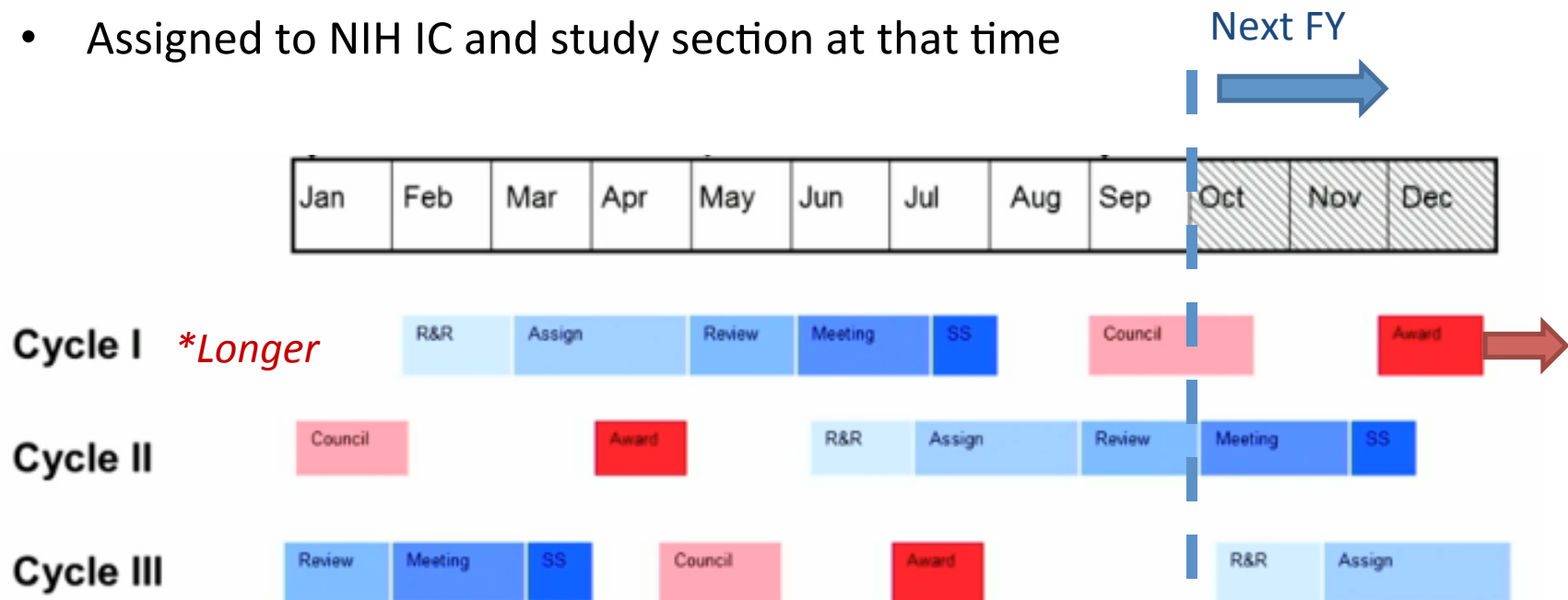


Prepare Application

- Follow instruction guide (SF424) and any special instructions in FOA
 - Rigor and Reproducibility
- Think of the reviewers
 - Who are they? See CSR website – SMEP is a common study section for muscle disorder applications
 - How can I help them do their job?
 - Criterion Scores: Significance, Investigator, Innovation, Approach, Environment
 - Understandable to an informed but diverse scientific audience , well-organized, readable figures, etc.
- Have mentors, colleagues, etc. read and critique

Submit Application

- Can suggest IC and study section assignment, expertise needed to review application in new NIH application form set D
- Allow plenty of time to catch/fix errors, issues
- Application received by NIH Center for Scientific Review, Division of Receipt and Referral
- Assigned to NIH IC and study section at that time



1st Level Review - Study Section

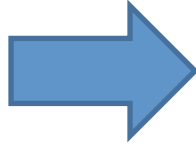
- At least three reviewers assigned to each application
- Top 50% of applications generally discussed at meeting
- Preliminary impact scores (**not** an average of criterion scores) and summary given by three reviewers
- Discussion opened to entire panel who are likely to be influenced by assigned reviewers
- Re-statement of scores from assigned reviewers, then whole panel votes
- Final impact score is the average of this vote, converted to a percentile in many cases but not all
- Program officer may be able to help interpret summary statement



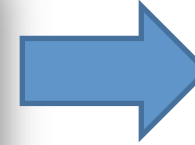
Overall Impact or Criterion Strength	Score	Descriptor
High	1	Exceptional
	2	Outstanding
	3	Excellent
Medium	4	Very Good
	5	Good
	6	Satisfactory
Low	7	Fair
	8	Marginal
	9	Poor

The Grant Process

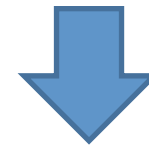
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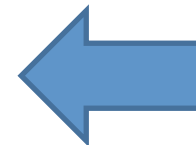
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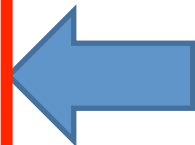
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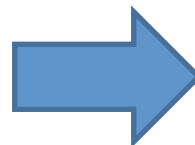
Study Section Peer Review
for Scientific Merit



IC Advisory
Council Review



IC Director makes
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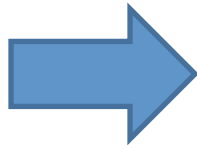


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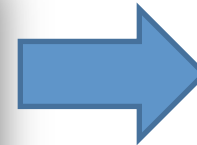


The Grant Process

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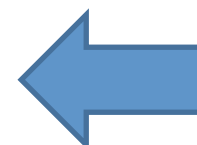
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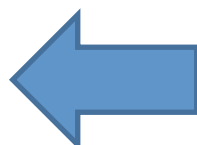
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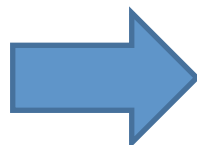
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IC Advisory Council Review



IC Director makes final funding decision



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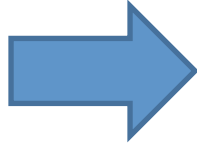
NINDS and NIAMS are very payline-driven Institutes

Paylines may improve later in the FY

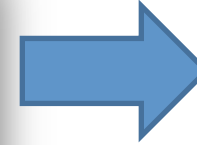


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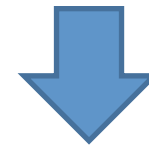
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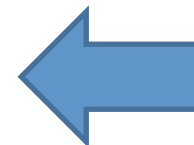
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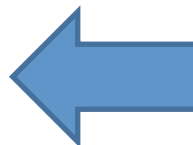
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Submit Application



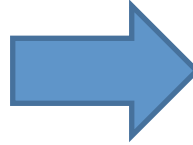
Study Section Peer Review for Scientific Merit



IC Advisory Council Review



IC Director makes final funding decision



Notice of Award

Nothing is official until you have the NoA!



Tips for Resubmission

- Very few get funded on their first attempt
- One chance for a resubmission of this application, but **unlimited* chances for an idea
- Respect differences in scientific opinion
- Resubmit when you have addressed all concerns
- Craft the introduction
- Update references

Tips for Managing an Award

- Progress Report – *a.k.a.* RPPR, *a.k.a.* Type 5 Progress Report
 - NIH interested in scientific progress and compliance with Notice of Grant Award
 - What worked, what didn't?
 - Any prior approvals needed?
 - Significant rebudgeting, change in scope, transfer of PI or university, change in human subject or animal use?
 - Carryover?
 - No cost extensions beyond the first?

Summary

- Seek guidance from NIH program officers in choosing an FOA
- Before you submit, get input from mentors, collaborators, department chair, etc. to critique your application
- Discuss summary statement with program officer
- Be persistent, keep the applications coming

OVERVIEW OF THE NATIONAL INSTITUTES OF HEALTH AND NATIONAL CANCER INSTITUTE GRANTS PROCESS

