

# NIH Grant Basics for MDF Fellows

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**Tom Cheever, Ph.D.**  
Program Director  
Muscle Disorders and Therapies  
Division of Musculoskeletal Diseases  
[Thomas.cheever@nih.gov](mailto:Thomas.cheever@nih.gov)



National Institute of  
Arthritis and Musculoskeletal  
and Skin Diseases

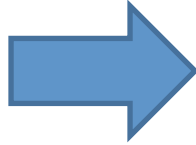
# National Institutes of Health

- 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)

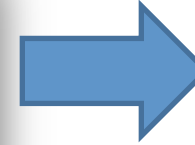


# The Grant Process

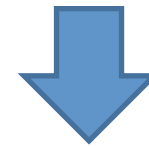
Idea



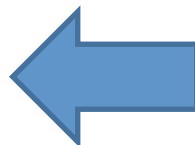
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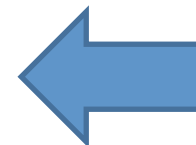
Prepare  
Application



IC Advisory Council  
Recommendation



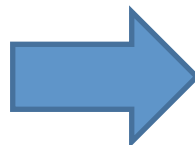
Study Section Peer Review  
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Submit  
Application



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 for HOME, ABOUT GRANTS, FUNDING, POLICY & COMPLIANCE, NEWS & EVENTS, and ABOUT OIG. The main content area is titled "NIH Guide to Grants and Contracts" and provides information about the guide's purpose and features. 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. The funding opportunity title is "NIH Research Project Grant (Parent R01)".

**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**  
Revision of PA-13-002

**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-15-434

# 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 Home Page

SEARCH

QUICK LINKS: RESEARCH, ORGANIZATIONS, WORKFORCE, FUNDING, REPORTS, LINKS & DATA

NIH RePORTER

MATCHMAKER

RESEARCHER AND ORGANIZATION

Principal Investigator (PI) / Project Leader (Last Name, First Name)

Organization

Department

Organization Type

Text Search

PROJECT DETAILS

Project Number / Application ID

Agency/Institute/Center

NIH Spending Category

Funding Mechanism

Award Type

NIH RePORTER

Matchmaker to find similar projects

Enter your Text:

Character limit: 1000

Submit / Clear

## Matchmaker Results



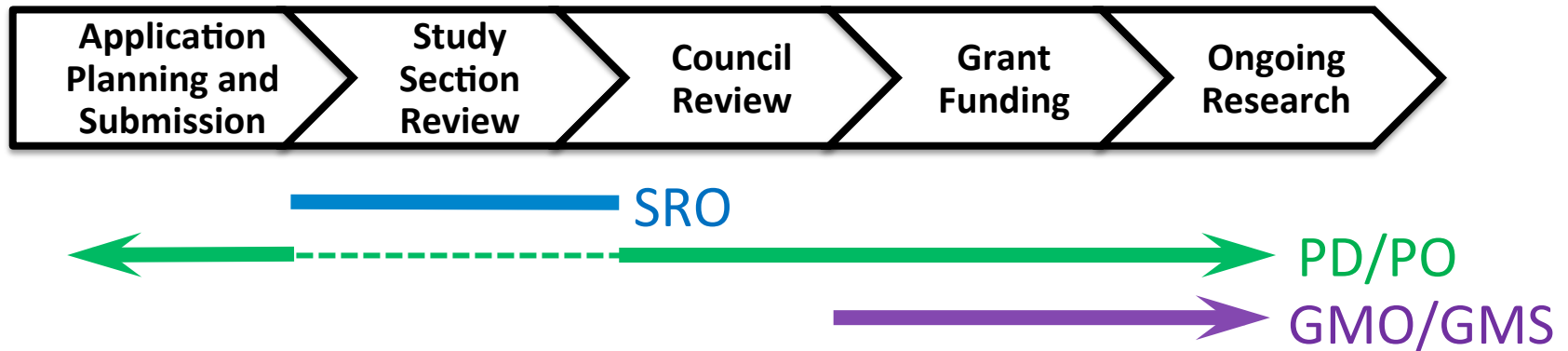
- Note:** these tools are not perfect, but can help give you ideas

# 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)

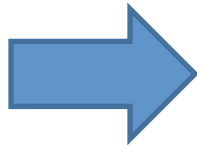
- Sets up and issues awards
- Interprets and ensures compliance with grant policies
- Reviews grant business activities

## Program Director / Officer (PD/PO)

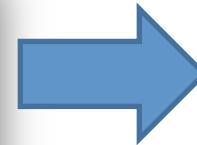
- Advises on funding opportunities and requirements for applications
- Observes review meetings and interprets summary statements
- Approves funding and monitors scientific progress
- Anticipates future scientific directions, assesses research needs and opportunities

# The Grant Process

Idea



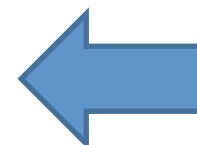
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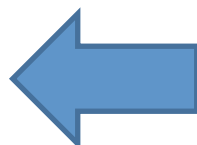
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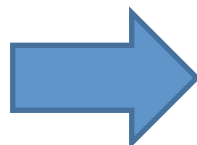
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IC Advisory  
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Notice of Award

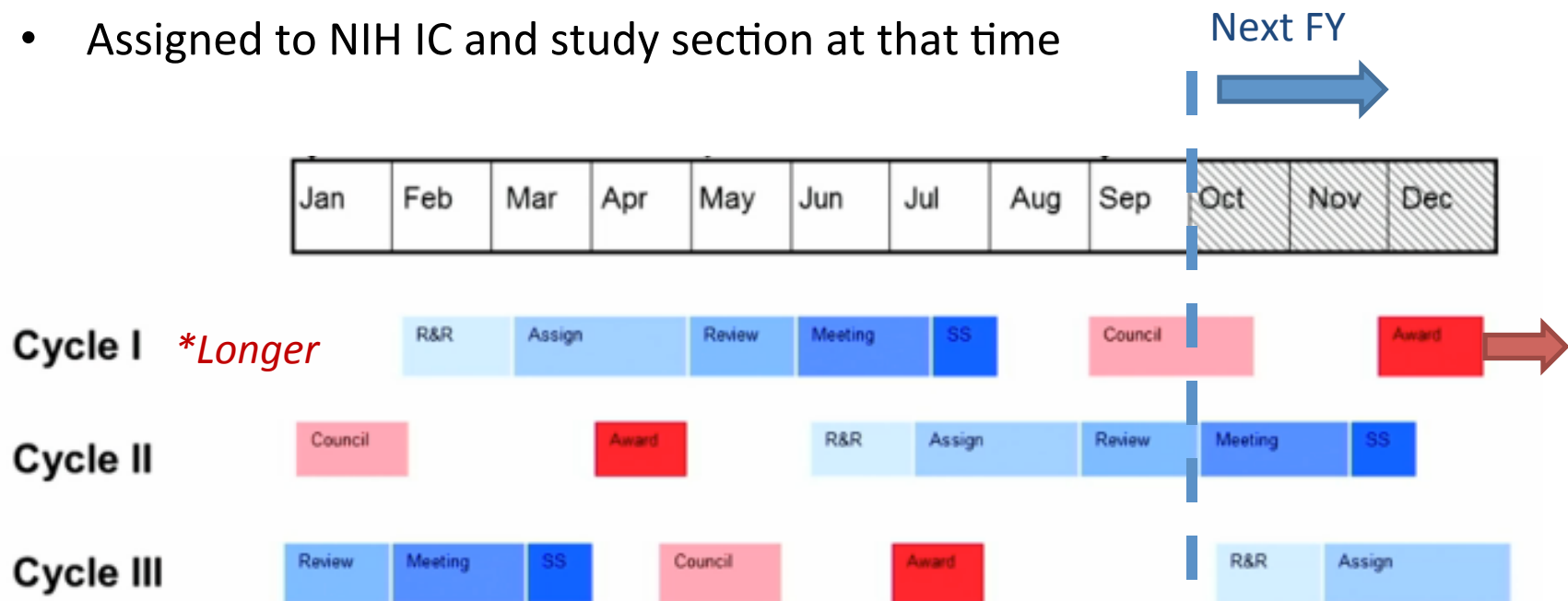


# Prepare Application

- 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



# 1<sup>st</sup> Level Review - Study Section

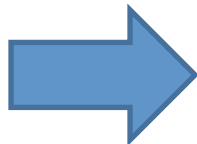
- At least three reviewers assigned to each application
- Top 50% of applications generally discussed at meeting
- Preliminary impact scores (**not** an average of criterion scores) and summary given by three reviewers
- Discussion opened to entire panel who are likely to be influenced by assigned reviewers
- 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



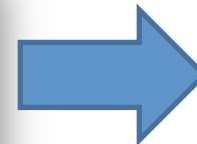
Overall Impact or Criterion Strength	Score	Descriptor
High	1	Exceptional
	2	Outstanding
	3	Excellent
Medium	4	Very Good
	5	Good
	6	Satisfactory
Low	7	Fair
	8	Marginal
	9	Poor

# The Grant Process

Idea



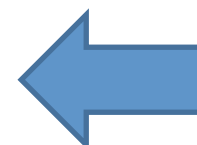
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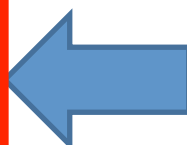
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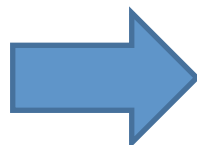
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IC Advisory  
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IC Director makes  
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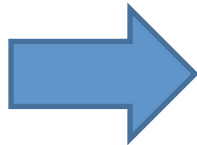


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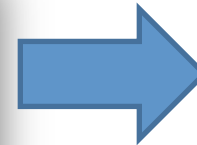


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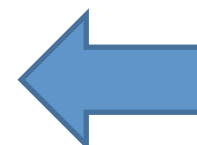
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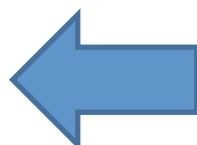
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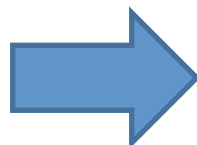
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IC Advisory Council Review



IC Director makes final funding decision



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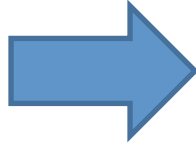
*NINDS and NIAMS are very payline-driven Institutes*

*Paylines may improve later in the FY*

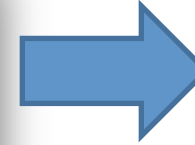


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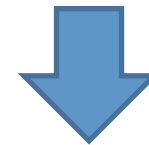
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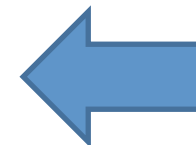
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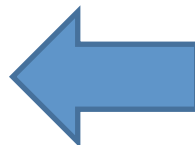
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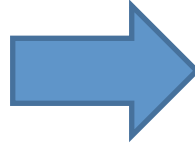
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IC Advisory Council Review



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

