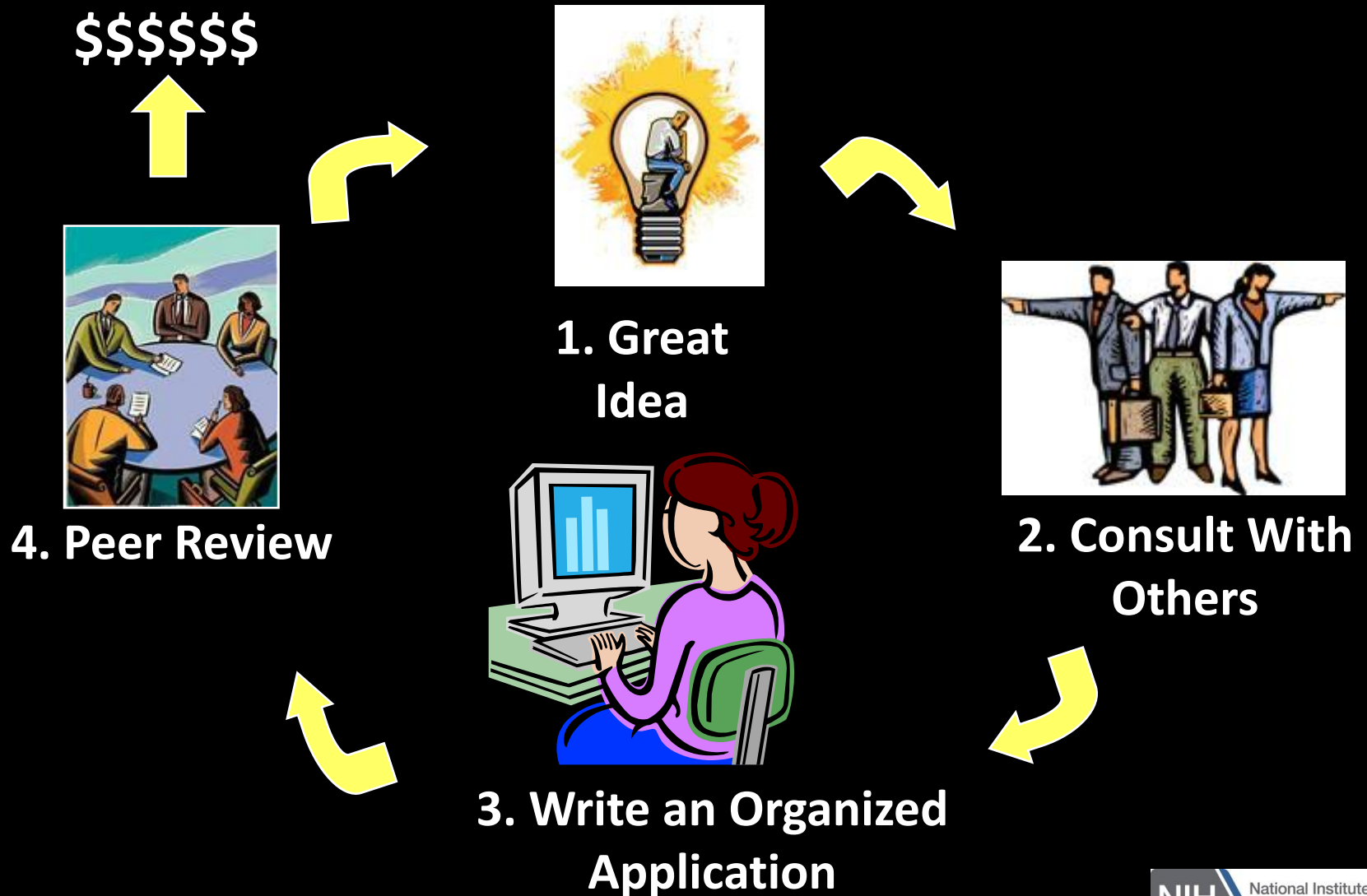


# NIH Peer Review



**Jaya Raman, Ph.D.**  
**Scientific Review Officer (SRO)**  
**NIDCR, NIH**

# NIH Grant Process



# Before you apply

## What to apply for?

### F Series: Fellowships

- Pre-doctoral (F30, F31...)
- Post-doctoral (F32, F33...)

### K Series: Career development

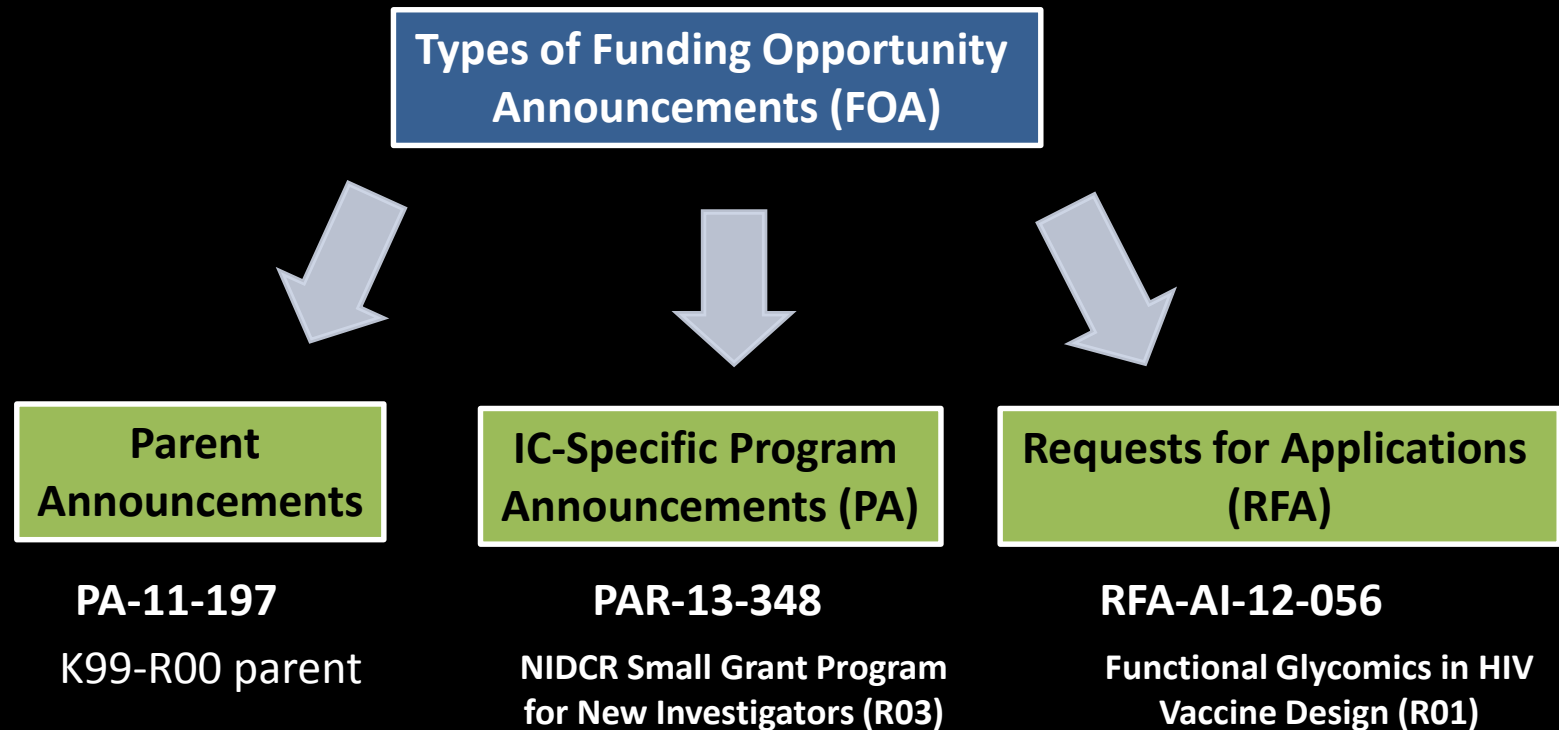
- Mentored (K08, K23, K99-R00...)
- Independent Scientist (K02...)

### R Series: Research grant

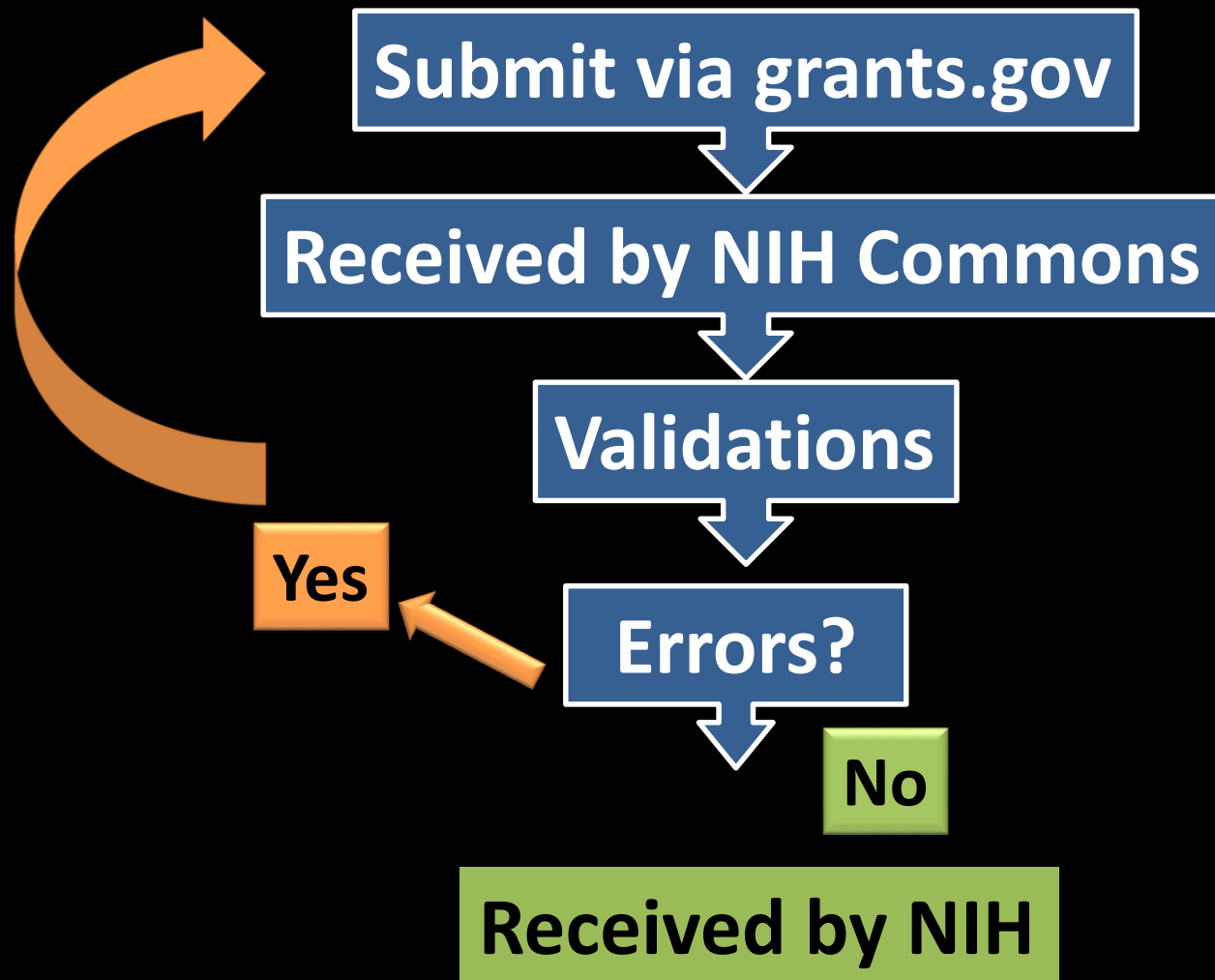
- Short or exploratory: (R03, R21...)
- Research Project Grants (R01...)
- Small Business (R41/R42, R43/R44...)

# Before you apply

## Identify Funding Opportunity Announcement (FOA)



# Submitting your application



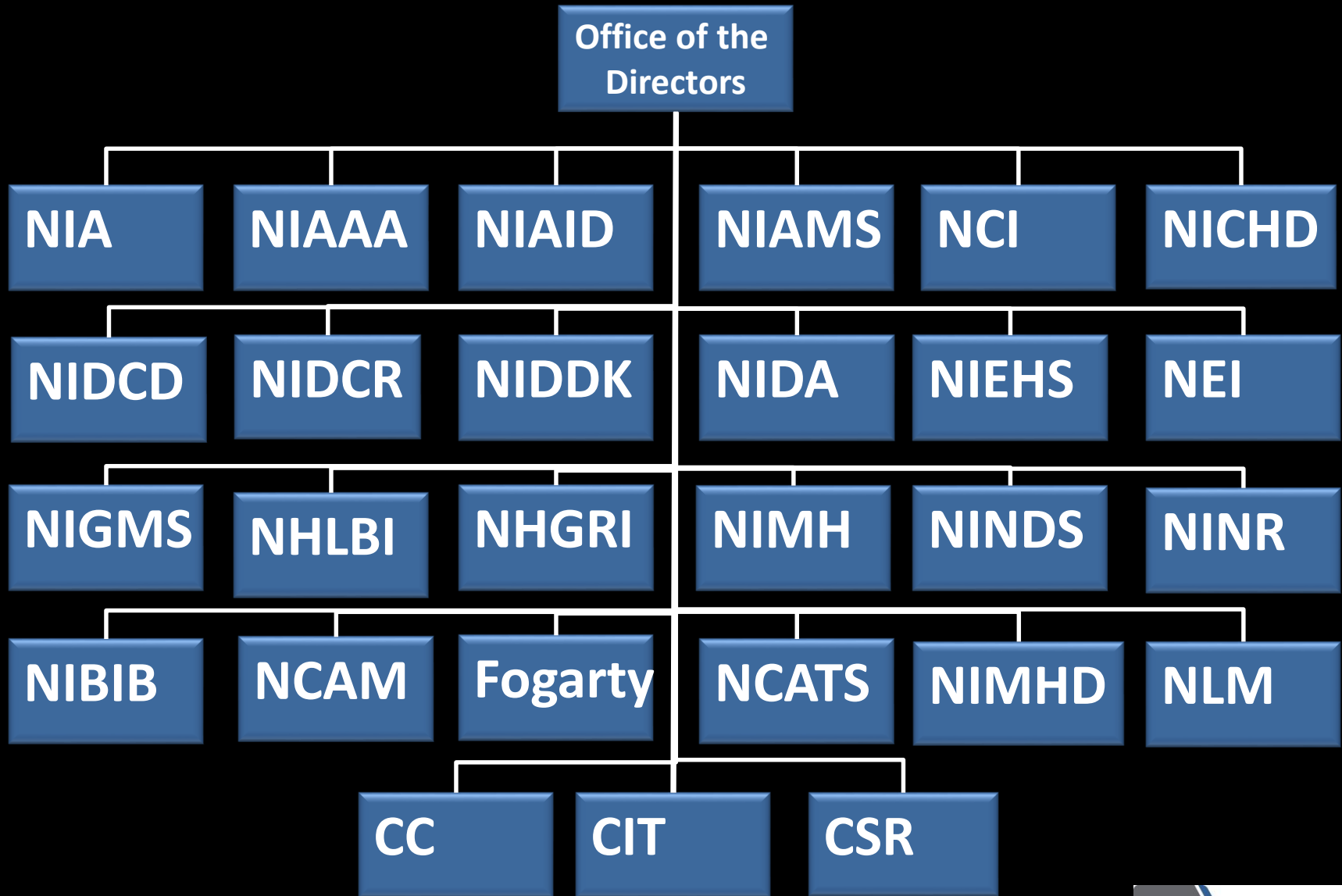
# Division of Receipt and Referral (DRR) Center for Scientific Review



# **Division of Receipt and Referral (DRR) Center for Scientific Review**

- **Is application on time?**
- **IC (NIH Institute or Center) Assignment**
- **Study Section assignment**

# The National Institutes of Health





# Where will the application be reviewed?

**80% at the Center for  
Scientific Review (CSR)**

**20% at NIH Institutes or  
Centers (IC)**

**R01 Research Projects**

**R21 Exploratory**

**R15 AREA**

**Clinical Trials**

**P01 Program Projects**

**T32 Institutional Training**

**K Career Development**

**R13 Conferences**

**R03 Small Research Pilot**

**NIDCR Fellowships: Institute review**

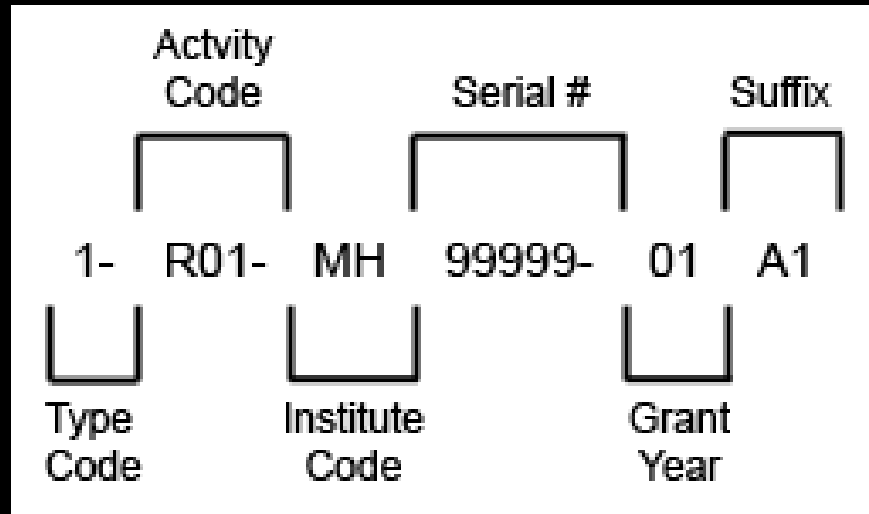
**NICHHD Fellowships: CSR Review**

# Application cover letter

## Disciplines involved (multidisciplinary)

- Requests
  - Institute
  - Study section
- List of individuals (e.g., competitors) who should not review your application and why
- Other FOA specifics (referees)
- Not all requests honored

# Application number



## Study Section Assignment Examples

**DSR NIDCR Special Grants Review Committee**

**ZRG1 AARR-C (03)**

**Center for Scientific Review Special Emphasis Panel**

**ODCS Oral, Dental and Craniofacial Sciences Study Section**

**Center for Scientific Review**

# NIH Peer Review

- **Two-tiered system**
  - **Initial peer review**
    - Review of Scientific and Technical Merit Review
    - Recommendations for Appropriate Level of Support and Duration of Award
  - **National Advisory Council or Board**
    - Assesses Results of Initial Review
    - Makes Recommendation to Institute Staff on Funding
    - Evaluates Program Priorities and Relevance
    - Advises on Policy

# The NIH Peer Review Process

## Types of Scientific Review Groups (SRGs)

- **“Chartered” SRGs**
  - Multiyear terms
  - Formal appointment process
  - May include temporary members for special expertise
- **Special Emphasis Panels (SEP)**
  - *Ad hoc* membership
  - Often meet only once

# Initial Peer Review

To see that NIH grant applications receive fair, independent, expert, and timely reviews – free from inappropriate influences – so NIH can fund the most promising research.

## The Scientific Review Officer (SRO) oversees the review

- Doctoral level scientist
- Expertise generally complementary to science reviewed in the study section
- Bears legal responsibility for study section and management of review
- Provides written reports (summary statements) to ICs for secondary review.

# Pre-Review Meeting

Administrative Review

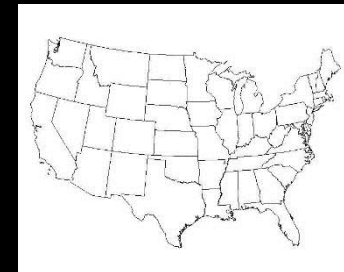
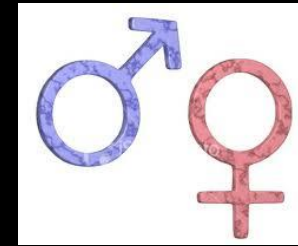
Evaluate for Expertise

Conflicts of Interest

Recruits panel

# Recruitment

- **Expertise and Funding**
- Career stage
- Review experience
- Publications
- Recommendations





# What happens before the meeting?



- Three or more assigned reviewers
- Preliminary Overall Impact Scores
- Criterion scores
  - Significance
  - Investigator
  - Innovation
  - Approach
  - Environment

# The Review Criteria

## F32

- Fellowship Applicant
- Sponsors, Collaborators, and Consultants
- Research Training Plan
- Training Potential
- Institutional Environment & Commitment to Training

## K99-R00

- Candidate
- Career Development Plan
- Research Plan
- Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
- Environment Commitment to the Candidate

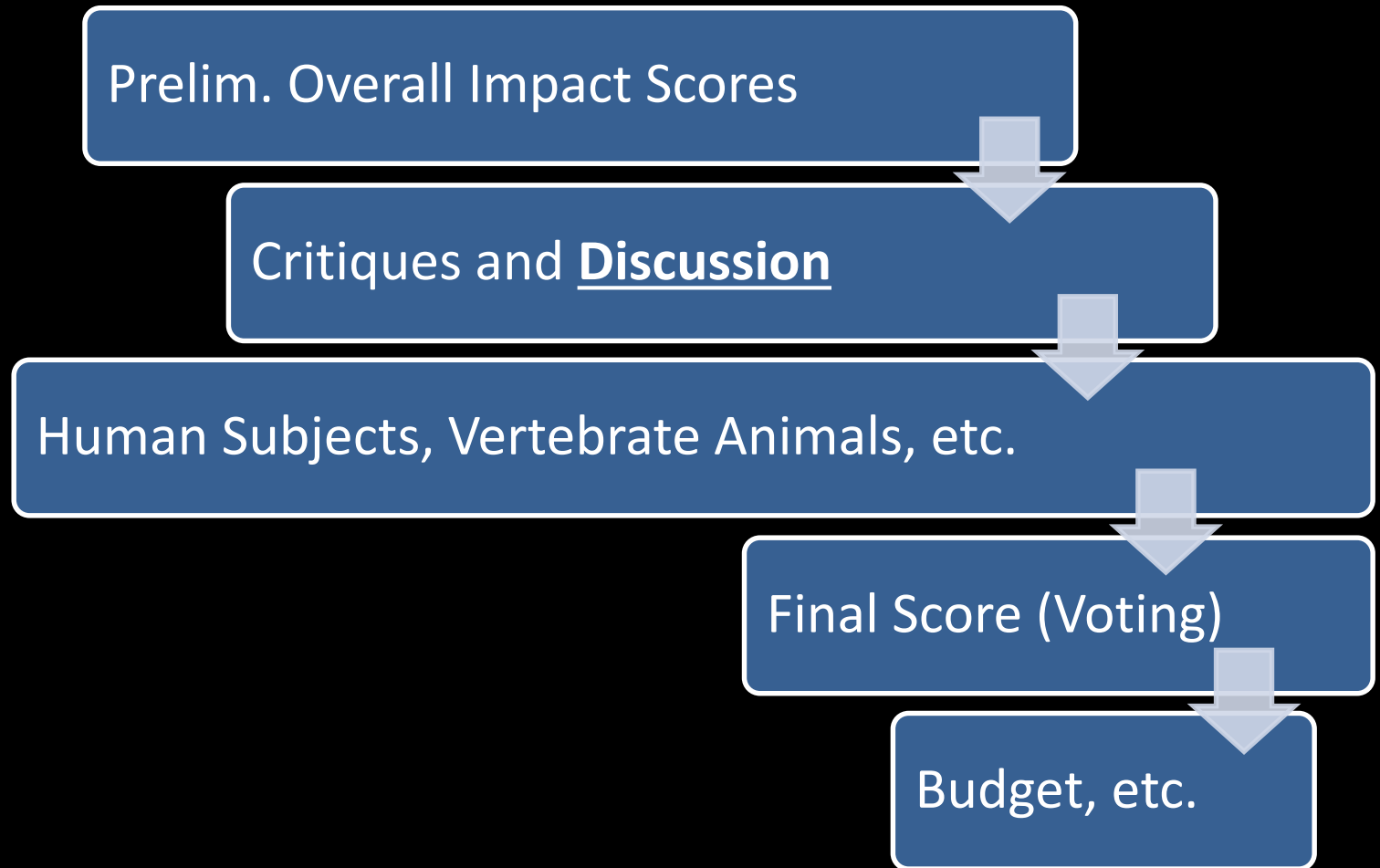
# The Review Criteria

## R01/R03

- Significance
- Investigator
- Innovation
- Approach
- Environment



# Review Meeting



Non-discussed (ND) applications

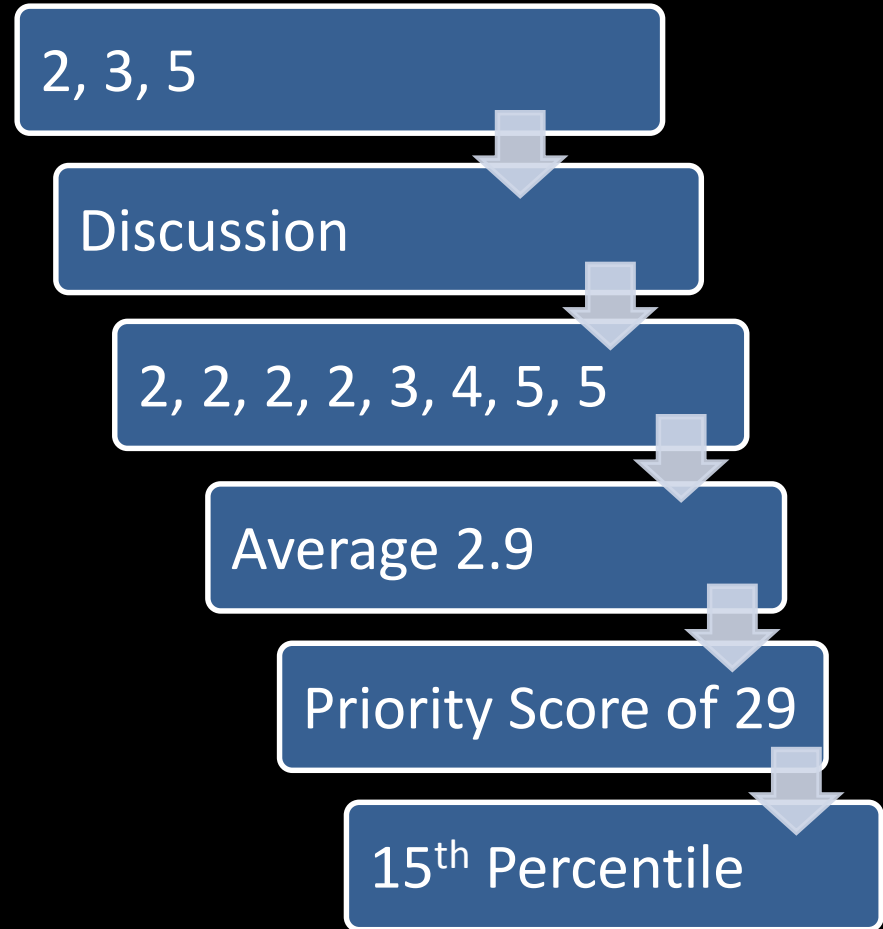
# New Investigator/Early Stage Investigators

## R01 – Research Grant

- will be designated as a New Investigator (NI) application
- clustered for review with other NI R01 applications in the study section
  - ~½ of NI applications may be “not discussed”;
  - NI summary statements are prepared first
- Special considerations: If an **Early Stage Investigator (ESI)**, reviewers are asked to evaluate based more on significance and impact and put less emphasis on track record for publications.

# What does my score mean?

Impact	Score	Descriptor
High Impact	1	Exceptional
	2	Outstanding
	3	Excellent
Moderate Impact	4	Very Good
	5	Good
	6	Satisfactory
Low Impact	7	Fair
	8	Marginal
	9	Poor



# What is in the summary statement?

DR. GARY J.  
301-400-0000  
XXX@nih.gov

**SUMMARY STATEMENT**  
( Privileged Communication )

Release Date: 09/09/1997

Application Number: 1 R01 CA0000717-01

MULDOON, THROCKMORTON P.  
UNIV PUNXATAWNEY MEDICAL CENTER  
DEPT OF INTERNAL MEDICINE  
100 SUNNYSIDE LANE  
PUNXATAWNEY, PA 00109-0724

Review Group: ZCA1 RLB-7 (04)  
NCI SPECIAL EMPHASIS PANEL

Meeting Date: JUNE 1997  
Council: SEPT/OCT 1997  
Requested Start: 09/01/1997

PCC: 00XX

Project Title: CYCLOOXYGENASE-2 INHIBITORS & COLON CANCER

SRG Action: Priority Score: 250  
Human Subjects: 44-Human subjects involved - SRG concerns  
Animal Subjects: 10-No live vertebrate animals involved for competing appl.  
Gender: 1A-Both genders, scientifically acceptable  
Minority: 1A-Minorities and non-minorities, scientifically acceptable  
Children: 3U-No children included, scientifically unacceptable  
Clinical Research - not NIH-defined Phase III Trial

Project Year	Direct Costs Requested	Estimated Total Cost
1	879,994	3,691,222
2	909,293	3,700,239
3	630,174	2,998,335
4	886,182	4,160,815
5	871,616	4,268,360
<b>TOTAL</b>	<b>4,177,259</b>	<b>18,818,971</b>

ADMINISTRATIVE BUDGET NOTE: The budget shown is the requested budget and has not been adjusted to reflect any recommendations made by reviewers. If an award is planned, the costs will be calculated by Institute grants management staff based on the recommendations outlined below in the COMMITTEE BUDGET RECOMMENDATIONS section.



# What is in the summary statement?

## All applications:

- Three or more critiques
- Criterion scores
- Roster

## Discussed applications:

- Resume and Summary of Discussion
- Summary of other review criteria and considerations
  - Human Subjects, Vertebrate Animals, etc.
  - Budget

# Where to find information?

## 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 (NHGRI) National Institute on Aging (NIA) National Institute on Alcohol Abuse and Alcoholism (NIAAA) National Institute of Allergy and Infectious Diseases (NIAID) National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) National Institute of Dental and Craniofacial Research (NIDCR)

# Where to find information?

## Section VII. Agency Contacts

### Scientific/Research Contact(s)

Table of IC-Specific Information Requirements and Staff Contacts

### Peer Review Contact(s)

Examine your eRA commons account for review assignment and contact information.

### Scientific/Research Contact(s)

Leslie A Frieden, PhD

National Institute of Dental and Craniofacial Research (NIDCR)

Telephone: 301-496-4263

Email [leslie.frieden@nih.gov](mailto:leslie.frieden@nih.gov)

### Peer Review Contact(s)

Yasaman Shiarazi, PhD

National Institute of Dental and Craniofacial Research (NIDCR)

Telephone: 301-594-5593

Email: [yasamain.shirazi@nih.gov](mailto:yasamain.shirazi@nih.gov)

# The Review Criteria

## Section V. Application Review Information

- **Criteria**
  - Only the review criteria described below will be considered in the review process. As part of the NIH mission, all applications are submitted to the review system.
- **Overall Impact**
  - Reviewers should provide their assessment of the likelihood for the candidate to maintain a strong research program.
- **Scored Review Criteria**

# Peer Review Cycle

## Timeline



# Tips

- Read all sections of the FOA carefully
- Know the review criteria (detailed in FOA)
- Follow instructions
- Start and Submit early
- Talk to your NIH Program Official(s)
- Show you draft application to colleagues
- Tailor biosketch to application
- Include cover letter
- Check application on NIH eRA commons after submission
- Address all errors and consider warnings

# CSR Early Career Reviewer (ECR) Program

## PURPOSE

- Train qualified scientists without CSR review experience
- Help emerging researchers advance careers by exposing them to peer review
- Enrich pool of reviewers – include scientists in less research-intensive institutions

## ELIGIBILITY

- Full time faculty or equivalent
- Post docs with active independent program of research
- Recent publications in peer-reviewed journals
- No previous review experience (other than as mail reviewer)
- NIH funding not necessary

Send your up-to-date CV and a list of terms that describe your scientific expertise to [CSREarlyCareerReviewer@mail.nih.gov](mailto:CSREarlyCareerReviewer@mail.nih.gov).