

NICHD Scholars Summer Workshop: What should a Beginning Investigator know about Grant Review at NIH?

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Scientific Review Officer
Scientific Review Branch
Eunice Kennedy Shriver National Institute of Child Health and Human Development

The Scientific Review Officer (SRO)

oversees the review

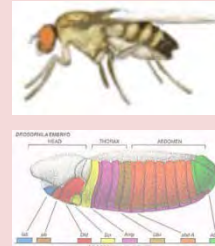
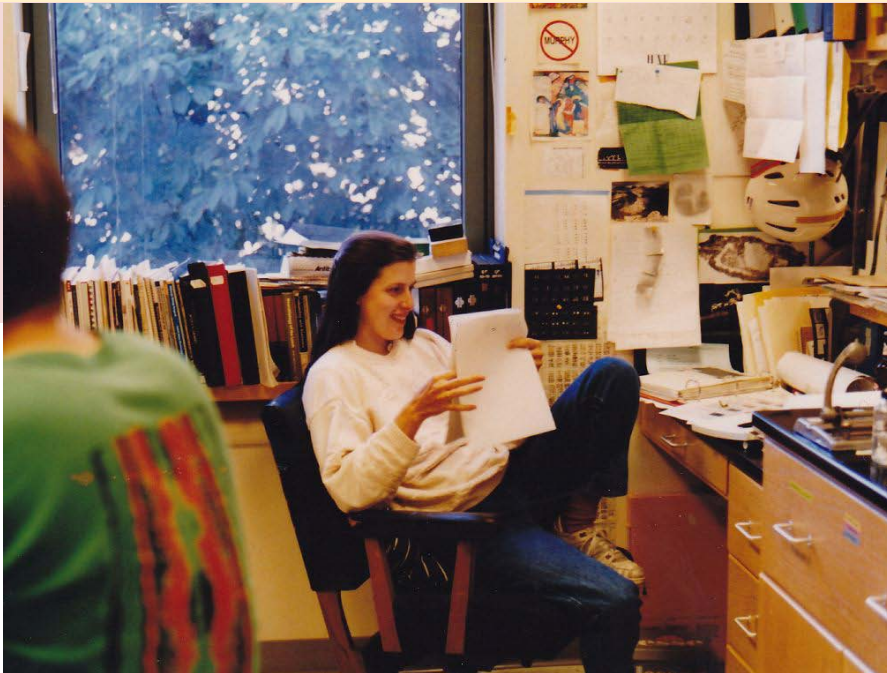
Designated Federal Official (DFO) with overall responsibility for the review process

- **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.**

The Postdoc Years



Yeast mitochondrial genetics



Drosophila development



Evo-Devo



Chromatin, Telomere length
--gene expression

*Human CNS, Neurobiology, Psychobiology, Genetics,
Human Genetics, Microbiology, General Biology*

How is it decided where my grant application will be reviewed?

How is it determined who will review my grant application?

Can I influence the decision?

How do I navigate the NIH System?



How do I navigate the NIH System?

**The General Process
of NIH Grant Review**



National Institutes of Health

Office of the Director Staff Offices:

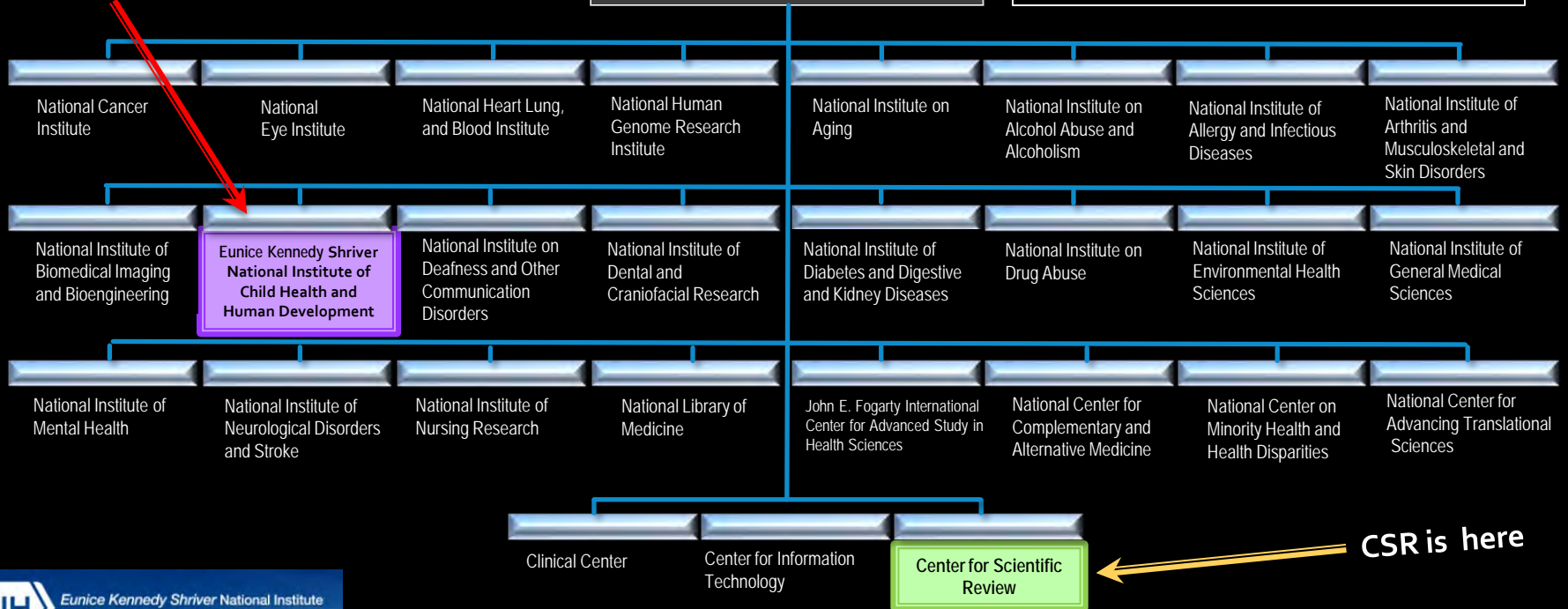
Office of Extramural Research
Office of Intramural Research
Office of Management/Chief Financial Office
Office of Science Policy
Office of Communication and Public Liaison
Office of Equal Opportunity and Diversity Management
Office of Legislative Policy and Analysis
Executive Office
Office of the Ombudsman/Ctr. For Cooperative Resolution
NIH Ethics Office
Office of the Chief Information Officer

Immediate Office of the Director

Office of the Director Program Office:

Division of Program Coordination, Planning, and Strategic Initiatives

You are here



CSR is here

Number of Grant Applications Reviewed in 2011:

80,519

Division of Receipt and Referral
Center for Scientific Review (CSR)

76,593 NIH

19,049 Institutes

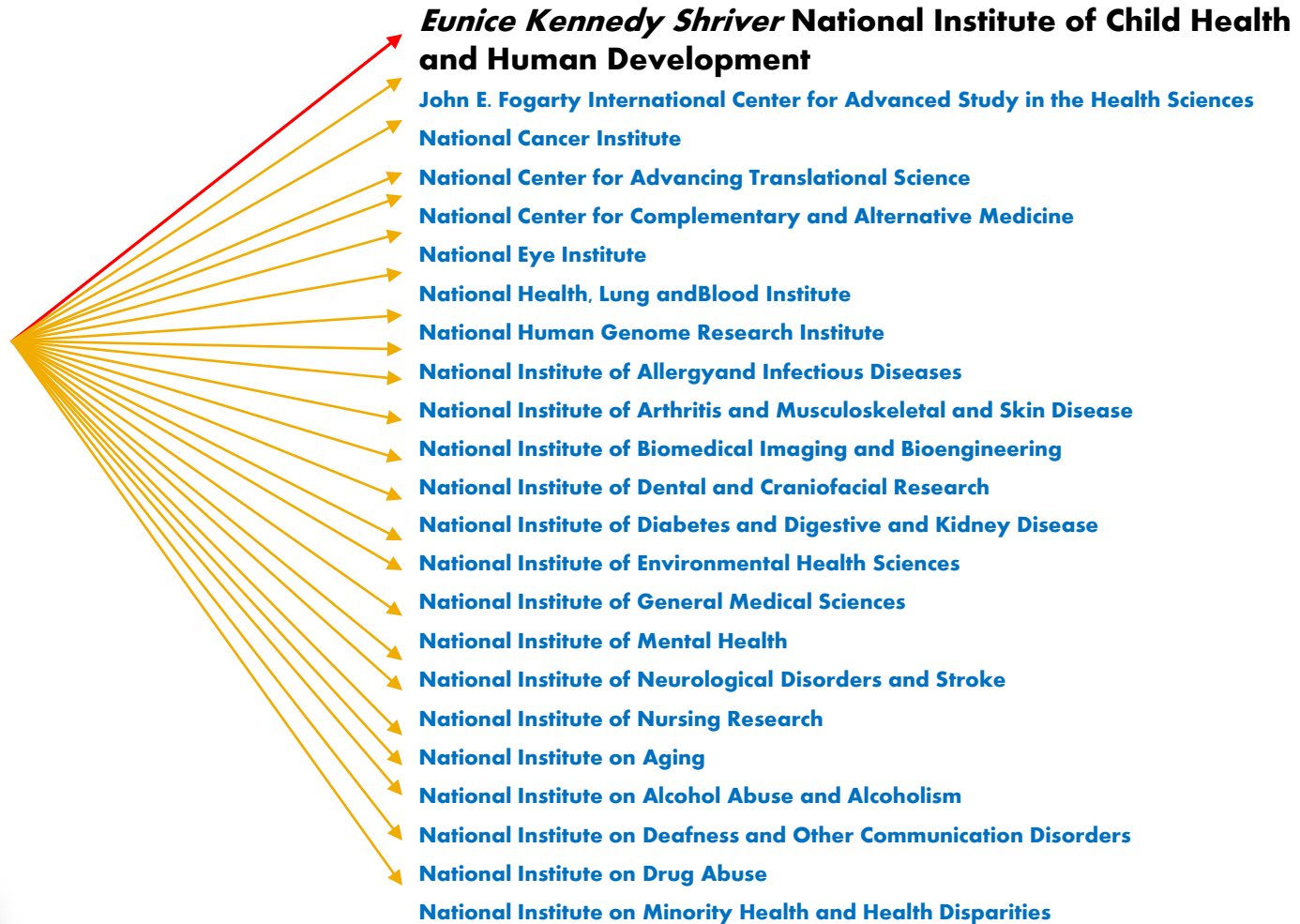
57,544 CSR

Step 1: Institute Assignment

All grant applications



Division of Receipt and Referral
Center for Scientific Review



Step 2: Review Assignment

Grant applications submitted for **Standard Due Dates**
and assigned to
***Eunice Kennedy Shriver* National Institute of
Child Health and Human Development (NICHD)**

R01 Research Projects
R21 Exploratory
R15 AREA
F Fellowships



Center for Scientific Review (CSR)

R01 Multisite Clinical
P01 Program Projects
T32 Institutional Training
K Career Development
R13 Conferences
R03 Small Research Pilot



**Scientific Review Branch (SRB)
(NICHD)**

Center for Scientific Review {CSR}

ACE	CADO	DEV₁	MBPP	PPDRP
ACTS	CAMP	DEV₂	MCE	PMDA
ADDT	CASE	DIRH	MCH	PN
AED	CBSS	DMP	MEDI	RDP
AICS	CCHF	DPVS	MESH	PTHE
AIP	CDD	DT	MFSR	RIBT
AMCB	CDIN	EBIT	MGA	RPIA
ANIE	CDP	ELS	MGB	RTB
AOIC	CE	EPIC	MGC	SAT
APDA	CG	ESTA	MIM	SBCA
ASG	CICS	GCAT	MIST	SBCB
AUD	CIDO	GDD	MNG	SBDD
BACP	CIHB	GHD	MNPS	SBIB-D
BBM	CII	GMPB	MONC	SBSR
BCHI	CIMG	GVE	MRS	SCS
BDMA	CLHP	HAI	MSFA	SEIR
BDPE	CMAD	HBPP	MSFB	SMEP
BGES	CMBG	HDEP	MSFC	SMI
BINP	CMBK	HIBP	MSFD	SPC
BMBI	CMIA	HM	MSFE	SPIP
BMCT	CMIB	HSOD	MTE	SSPS
BMIO	CMIP	HT	NAED	SYN
BMIT-J	CMIR	ICER	NAL	TAG
BMIT	CMND	ICI	NAME	TCB
BMRD	CNBT	ICP₁	NANO	TME
BNVT	CNN	IHD	NCF	TPM
BPNS	CNNT	III	NCSD	TTT
BRLE	COG	INMP	NDPR	UGPP
BSCH	CONC	IPOD	NMB	UKGD
BSPH	CP	IRAP	NNRS	VACC
BTSS	CPDD	ISD	NOIT	VB
BVS	CRE-B	KMBD	NOMD	VCMB
	CRES	KNOD	NPAS	VIRA
	CSRS	LAM	NRCS	VIRB
	CVP	LCMI	NTRC	VMD
	DBD	LCOM	ODCS	XNDA
	DDNS-C	LIRR	PBKD	
	DDR	MABS	PCMB	

<http://public.csr.nih.gov/StudySections/Pages>

NICHD Scientific Review Branch {SRB}

CHHD-H Biobehavioral and Behavioral Sciences Subcommittee
CHHD-C Developmental Biology Subcommittee
CHHD-K Function, Integration and Rehabilitation Subcommittee
CHHD-D Health, Behavior and Context Subcommittee
CHHD-B Obstetrics and Maternal-Fetal Biology Subcommittee
CHHD-A Pediatrics Subcommittee
CHHD-W Population Sciences Subcommittee
CHHD-R Reproduction, Andrology and Gynecology Subcommittee

Steps 3 and 4: NIH “Dual Stage” Peer Review System

Initial Review

Scientific Review Group (DSR or CSR)

- Provides Initial Scientific and Technical Merit Review
- Makes Recommendations for Appropriate Level of Support and Duration of Award

Second Level Review

Advisory Council of EKS-NICHD

- Assesses Results of Initial Review
- Makes Recommendation to Institute Staff on Funding
- Evaluates Program Priorities and Relevance
- Advises on Policy

Mission of Review at NIH

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.



Standard 'Initial Review' Policies Across NIH

THE REVIEW MUST

- Provide appropriate expertise
- Ensure that major facts are correct
- Provide reviewers with the appropriate materials
- Be free of personal bias

THE APPLICANT MUST

- Comply with application receipt dates
- Follow rules for appendices, page limits, resubmission policy
- Submit only allowable post-submission materials and comply with due dates

SROs across NIH



- Recruit and assign a minimum of three interactive reviewers per grant application
- Avoid Conflicts of Interest (COI)
- Maintain Confidentiality

How do we choose Reviewers?

1. Read the application/Specific Aims
2. Assemble a panel
 - whose collective members have **appropriate expertise** (to cover the proposed Specific Aims).
 - panel members generally have **established funding**
 - Panel members must have **no conflict of interest** with the grant application to be assigned as an interactive reviewer.

Conflicts of Interest

- Financial connection
- employed by same institution as any of the key personnel (PIs, other investigators or paid consultants)
- published together in the last 3 years
- collaborated in the last 3 years (or current plans)
- advisor/advisee relationship
- a relative
- personal reasons
- potential reviewers requested by PI

Specifics of Review of Activity Codes

K99-R00

R01

R03

R15

Types of Grants of Interest to a New Investigator

- **K99-R00** – Pathway to Independence (PI) Award

- **R01** – Research Grant

- **R03** – Small Research Grant

- **R15** – Academic Research Enhancement Award (AREA)

Making the transition from Postdoc to New Investigator

- **K99-Roo – Pathway to Independence (PI) Award**
 - 1-2 years of mentored research support followed by up to 3 years of independent support
 - Clustered for review (~1/2 may be “not discussed”)

NIH Pathway to Independence Award (K99/R00)

Scored Review Criteria

- Candidate
- Career Development Plan/Career Goals & Objectives
- Research Plan
- Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
- Environment & Institutional Commitment to the Candidate

Additional Review Criteria

- Protections for Human Subjects
- Inclusion of Women, Minorities, and Children
- Vertebrate Animals
- Biohazards
- Resubmissions
- Renewals
- Revisions

9 Point Scoring Scale

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

First Grant Applications as a New Investigator

■ **Ro1 – Research Grant**

- will be designated as a New Investigator (NI) application
- clustered for review with other NI Ro1 applications in the study section
 - ~1/2 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.

Multiple PI Applications

■ MPI –

- Designated as a **NI/ESI** application only if *all investigators* are ESIs
- if funded as an MPI application, you lose ESI status

Research Grant (R01)

Scored Review Criteria

1. Significance
2. Investigator
3. Innovation
4. Approach
5. Environment

Additional Review Criteria

Protections for Human Subjects

Inclusion of Women, Minorities, and Children

Vertebrate Animals

Biohazards

Resubmissions

Renewals

Revisions

First Grant Applications as a New Investigator

■ R03 – Small Research Grant

- not exclusively for NI – no special compensation for NIs
- but may be desirable as an option for a first grant application because it does not require preliminary results;
- you should demonstrate that the proposed work is feasible
- Clustered for review (~1/2 “not discussed”)

First Grant Applications as a New Investigator

- **R15 — Academic Research Enhancement Award (AREA)**
 - For small research projects at colleges and universities that do not receive significant NIH funds
 - Can introduce undergraduates to research
 - Clustered for review (~1/2 not discussed)

How to communicate about review of your grant application

When your grant application is in the Review Phase the PI should communicate with the SRO rather than the PO

■ *What is the best way to communicate with your SRO and others involved in the review process?*

- 1. Cover Letter of your application
 - Suggest Institute assignment
 - Suggest Regular Study Section at CSR or SRB—
 - or identify areas of expertise needed to evaluate the application
 - Identify individuals who are in conflict
 - (Put the FOA you are responding to in the cover letter)
- 2. email or telephone with specific questions



...Can I influence the decision?

Where PI can have input

In cover letter:

- Suggest institute assignment
- Suggest regular study section at CSR or at IC or identify areas of expertise needed to evaluate the application
- Identify individuals who are in conflict

Where PI cannot have input

- Suggesting IC vs. CSR review
- Suggesting specific reviewers
- Suggesting use of previous reviewers
- Suggesting SEP vs. Study Section

Visit CSR or SRB on the Internet

www.csr.nih.gov/

national institutes of health
 center for scientific review | the measure and future of science and health

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Planning, Writing, and Submitting | Receipt and Referral | Initial Review, Results, and Appeals

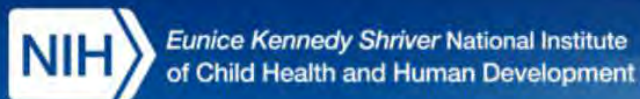
CSR Home > Applicant Resources

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Policy Changes

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review

Health & Research

Grants & Funding

Training, Education & Career Development

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About NICHD

Institute Overview

Scientific Review Branch (SRB)

Contact Information

Name: [Dr Sherry Dupere](#)

How to get firsthand experience in NIH Grant Review

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.