U.S. Department of Health & Human Services



#### **The NIH Peer Review Process**

Christine Piggee, Ph.D. Scientific Review Officer Synapses, Cytoskeleton & Trafficking (SYN) study section Molecular, Cellular & Developmental Neuroscience (MDCN) Integrated Review Group (IRG) Center for Scientific Review NIH

## Most Applications Go to the NIH Center for Scientific Review (CSR)

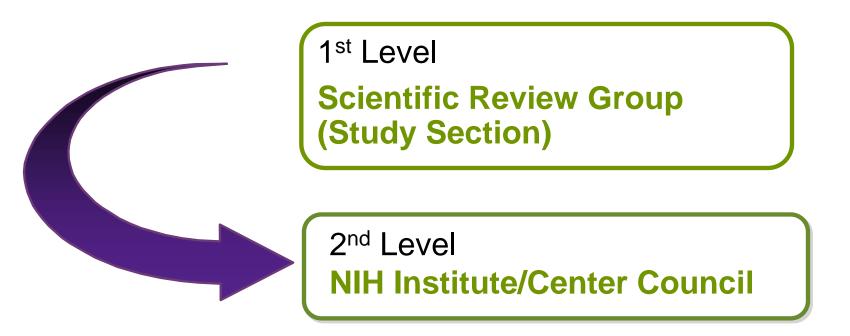
#### **Focal Point for Initial Review at NIH**



- Receives
- Refers
- Reviews



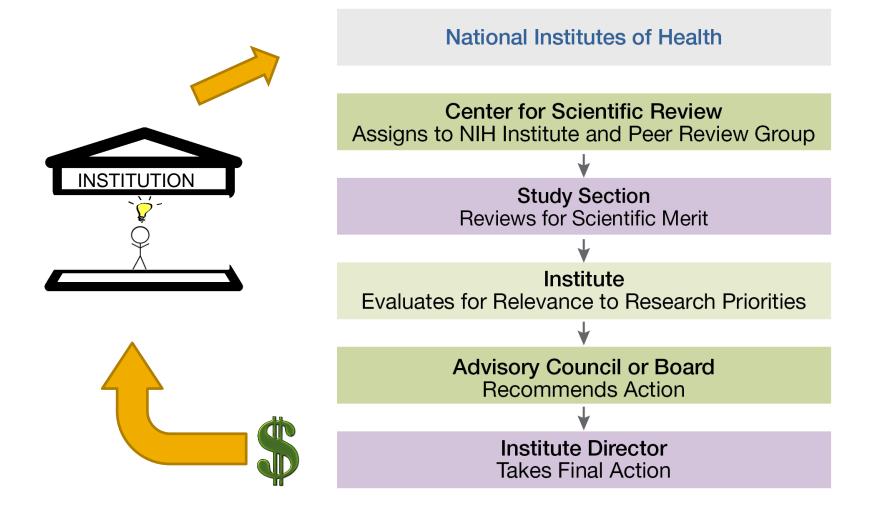
### **NIH Peer Review System for Grant Applications**







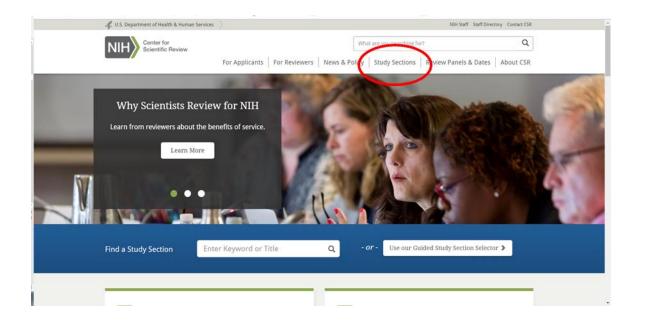
## Path from Idea to NIH Funding





### Help Your Application Get to the Right Study Section

1. List of study sections on CSR website

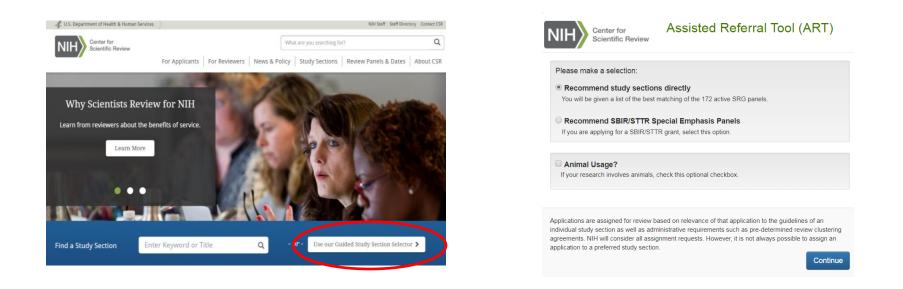


#### <u>www.csr.nih.gov</u> $\rightarrow$ Study Sections $\rightarrow$ Chartered Study Sections



## Help Your Application Get to the Right Study Section (cont.)

#### 2. Assisted Referral Tool (ART)



#### www.csr.nih.gov → Use our Guided Study Section Selector



## Help Your Application Get to the Right Study Section (cont.)

3. NIH RePORTER database

U.S. Department of Health & Hu	iman Services				Text Size A A A
NIH Research	h Portfolio Online Report 7)	ing Tools	HOME   ABC	Search	Q.
QUICK LINKS RE	SEARCH ORGANIZAT	TIONS WORKFORC	E FUNDING	REPORTS	LINKS & DATA
Home > RePORTER > Query Form		My	RePORTER Login	Register   RePORTER Manual	System Health: GREEN
NIH RePO	FIND PROGRAM OFFIC		About RePORTER DATA	FAQ EXPORTER	RSS of Newly 🔊 🔞
SUBMIT QUERY CLEAR			Fiscal Year (FY): O Act Current FY is 2018	ive Projects	SELECT
Principal Investigator (PI) / Project Leader: (Last Name, First Name)		es OR PI Profile IDs	City: 2	%' for wildcard	
Organization: 🥑	Please enter at least 3 characters to Contains Begins with Exact	1	Country: @		SELECT
Department Type: @ Organization Type: @		SELECT	DUNS Number:		SELECT
TEXT SEARCH Text Search (Logic):		Search in Projects Publics News haracters left: 2500	Project Title	Start Year 2017 ¥ End Year 2018 ¥	to

#### https://projectreporter.nih.gov/reporter.cfm



## **Assignment Request Form (optional)**

- Suggest Institute/Center assignment (+ and -)
- Study Section Requests (+ and -)
- Potential individuals in conflict (and why)
- Areas of expertise needed

View Burden Statement	PHS	S Assignment Requ	est Form	OMB Number: 0925-0001 Expiration Date: 10/31/2018
Funding Opportunity Number:				
Funding Opportunity Title:				
Awarding Component Assignment Requ	est (optional)			
If you have a preference for an Awarding Component (e.g., NH Institute/Center) assignment, please use the link below to identify the most appropriate assignment then enter the short abbreviation (e.g., NDI for National Cancer Institute) in "Assign toDD Nata Assign To Awarding Component" sections below. Your first choice should be in column 1. All requests will be considered, brevery, close of review is predetermined for subgraphing assignment requests cancer and aways be houred.				
Information about Awarding Components ca	an be found here: https://grant	s.nih.gov/grants/phs_assignme	nt_information.htm#Awarding	Components
	1	2	3	
Assign to Awarding Component:				
Do Not Assign to Awarding Component:				
Study Section Assignment Request (opti	onal)			
If you have a preference for a study section assignment, please use the link below to identify the most appropriate study section then enter the short abbreviation for that study section in Assign to Dio not Assign to Study Section' sections below. Your first choice should be in column 1. All requests will be considered, however, locus of review is predetermined for some applications and assignment requester and values to home routed.				
For example, you would enter "CAMP" if you wish to request assignment to the Cancer Molecular Pathobiology study section or enter "ZRG1 HDMR" if you wish to request assignment to the Heathcare Deliver and Methodoboies SBR/STTR panel for informatics. Be careful to accurately capture all formations (e.g., spaces, heathern) when you true in the request.				
Information about Study Sections can be found here: https://grants.nih.gov/grants/phs_assignment_information.htm#StudySection				
	1	2	3	
Assign to Study Section: Only 20 characters allowed				
Do Not Assign to Study Section: Only 20 characters allowed				





### Your SRO Convenes the Study Section Meeting

#### **Discussions Focus on the Best Applications**



Reviewers typically discuss the top half



## At the Meeting: Application Discussion

• Anyone in conflict with an application leaves the room



## At the Meeting: Application Discussion (cont.)

- Anyone in conflict with an application leaves the room
- Reviewer 1 introduces the application and presents critique
- Reviewers 2 and 3 highlight new issues and differences of opinion in areas that significantly impact scores
- All panelists in the room are invited to join the discussion and then vote on the final overall impact score



#### **Review Criteria and Considerations: K vs. R Grant Applications**

Career Development Grants (K01, K02, K07, K08, K23, K24, K25, K99)Research Project Grants (R01, R21, R03)Overall ImpactOverall ImpactOverall ImpactScored Review Criteria (Scored individually and considered in overall impact score)• Candidate • Career Development Plan/ Career Goals & Objectives/Plan to Provide Mentoring • Research Plan• Significance • Investigator(s) • Innovation • Approach • Approach • Environment & Institutional commitment to the Candidate			
<ul> <li>Scored Review Criteria (Scored individually and considered in overall impact score)</li> <li>PAR &amp; RFA: May add questions to each scored criterion or</li> <li>Candidate</li> <li>Career Development Plan/ Career Goals &amp; Objectives/Plan to Provide Mentoring</li> <li>Research Plan</li> <li>Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)</li> <li>Environment &amp; Institutional Commitment to the Condidate</li> </ul>			Grants
<ul> <li>Criteria (Scored individually and considered in overall impact score)</li> <li>PAR &amp; RFA: May add questions to each scored criterion or</li> <li>Career Development Plan/ Career Goals &amp; Objectives/Plan to Provide Mentoring</li> <li>Research Plan</li> <li>Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)</li> <li>Environment &amp; Institutional Commitment to the Condidate</li> </ul>	<b>Overall Impact</b>	Overall Impact	Overall Impact
	Criteria (Scored individually and considered in overall impact score) PAR & RFA: May add questions to each scored criterion or	<ul> <li>Career Development Plan/ Career Goals &amp; Objectives/Plan to Provide Mentoring</li> <li>Research Plan</li> <li>Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)</li> <li>Environment &amp; Institutional</li> </ul>	<ul><li>Investigator(s)</li><li>Innovation</li><li>Approach</li></ul>



#### **Review Criteria and Considerations (cont.)**

	Career Development Grants (K01, K02, K07, K08, K23, K24, K25, K99)	Research Project Grants (R01, R21, R03)
Additional Review Criteria (Not scored individually, but considered in overall impact score) PAR & RFA: May add new criteria or questions to each additional criterion	For Clinical Trials only: Study Timeline for Clinical Trials All: • Protections for Human Subjects • Inclusion • Vertebrate Animals • Biohazards • Resubmission • Renewal • Revision	For Clinical Trials only: Study Timeline for Clinical Trials All: • Protections for Human Subjects • Inclusion • Vertebrate Animals • Biohazards • Resubmission • Renewal • Revision



#### **Review Criteria and Considerations (cont.)**

	Career Development Grants (K01, K02, K07, K08, K23, K24, K25, K99)	Research Project Grants (R01, R21, R03)
Additional Review Considerations (Not scored individually and not considered in overall score)	<ul> <li>Training in the Responsible Conduct of Research</li> <li>Select Agents</li> <li>Resource Sharing Plans</li> <li>Authentication of Key Biological and/or Chemical Resources</li> <li>Budget &amp; Period of Support</li> </ul>	<ul> <li>Applications from Foreign Organizations</li> <li>Select Agents</li> <li>Resource Sharing Plans</li> <li>Authentication of Key</li> <li>Biological and/or Chemical Resources</li> <li>Budget &amp; Period of Support</li> </ul>



## **Scored Review Criteria for K Applications**

- Overall Impact
  - Assessment of the likelihood that the proposed career development and research plan will enhance the candidate's potential for a productive, independent scientific research career in a health-related field
- Candidate



## Scored Review Criteria for K Applications (cont.)

- Career Development Plan/Career Goals & Objectives/Plan to Provide Mentoring
  - Customized
  - Research/technical skills
  - Professional training
- Research Plan
  - Well-integrated with career development plan
  - Significance



## Scored Review Criteria for K Applications (cont.)

- Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)
  - Complementary skills
  - Strong history of training PIs
  - When adding senior faculty, justifying good fit
  - For K99, what candidate can take with them
  - Check for consistency
- Environment & Institutional Commitment to the Candidate



## Scored Review Criteria for K Applications (cont.)

Very strong: people+ science + plan = competitive application

#### ADDITIONAL HELPFUL RESOURCES

See <u>https://grants.nih.gov/grants/peer/critiques/k.htm</u> for what reviewers are asking with respect to each criterion (specific to the type of K mechanism)

https://www.niaid.nih.gov/grants-contracts/application-advice-researchcareer-development-k-awards



#### Scored Review Criteria for R01s, R21s, R03s

- Overall Impact
  - Assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved
- Significance
- Investigator(s)
- Innovation
- Approach
- Environment



## **9-Point Scoring Scale**

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



## Scoring

#### 9-point score scale is used to provide:

- Criterion Scores
  - Candidate Career Development Plan/ Career Goals & Objectives/Plan to Provide Mentoring; Research Plan; Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s); and Environment & Institutional Commitment to the Candidate for Ks OR
  - Significance, Investigator, Innovation, Approach & Environment for Rs
- Overall Impact Score

#### All applications receive scores:

- Not discussed initial criterion scores
- Discussed initial criterion scores & avg overall impact score



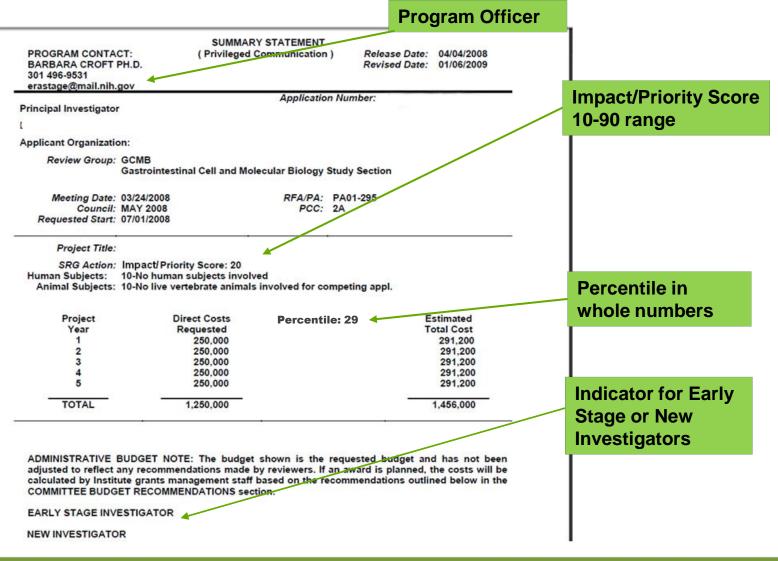
### **Priority Scores/Percentile Rank**



- Discussed applications are scored
  1 (best) to 9 (worst)
- Average Final Overall Impact Score × 10
   = Priority Score
- Percentile based on application's rank



## **Summary Statement**





#### Your Career Stage Is Considered



- If you are a New Investigator or Early Stage Investigator (R01s)
  - Less emphasis on preliminary data and publications
  - More emphasis on training



U.S. Department of Health & Human Services



# Jumpstart Your Career: CSR Early Career Reviewer Program

### Early Career Reviewer (ECR) Program Goals

- Train and educate
- Expose to the peer review experience
- Enrich the pool









## Qualifications for the Early Career Reviewer (ECR) Program

- Demonstrated training and experience by:
  - A faculty appointment or equivalent
  - An active independent research program
  - At least two senior-authored research publications in peer-reviewed journals in the past two years
- No previous CSR review
- New Investigator



### How to Apply for the ECR Program

- Instructions are at <u>www.csr.nih.gov/ECR</u>
- If eligible, your name is entered in ECR database
- You may be invited to serve as an ECR
- You can also email Scientific Review Officers



### **Personal Observations**

- Planning your project
  - Program Officers
  - Preliminary studies
- Pay attention to the writing (story)

There is no amount of grantsmanship that will turn a bad idea into a good one . . . But there are many ways to disguise a good idea.

Dr. William Raub, former Deputy Director, NIH



### **Personal Observations (cont.)**

• Everchanging guidelines, forms, etc.

www.grants.nih.gov

- Start early
- Note extenuating circumstances in Biosketch



### **Personal Observations (cont.)**

- Growth mindset
- Understand the randomness



### **Personal Observations (cont.)**

- Publish!
- Get some review experience

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