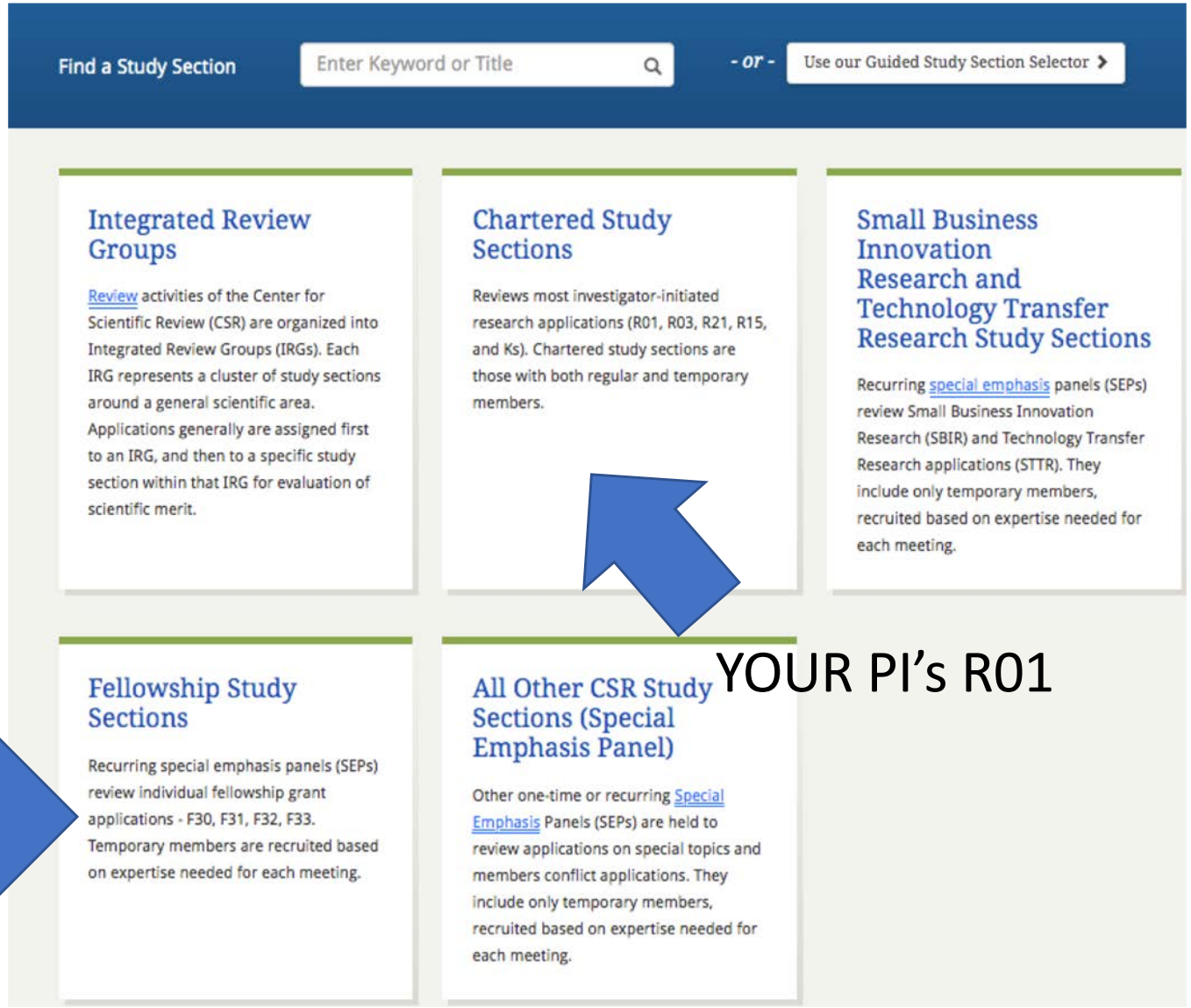
# BMSC 8219
# Review, resubmission & award
# April 19, 2021

| | |
|---|---|
| Qualifier | Submit aims |
| | Proposal & oral defense |
| Fellowship | PhD candidate |
| | Preliminary data |
| | Application strategies |

Strategies for documents & submission

# NIH review by review groups / study sections led by Center for Scientific Review (CSR)




YOUR PI's R01

YOUR Fellowship

https://public.csr.nih.gov/StudySections

# NIH Fellowship Study Sections

| Study Section | Study Section Description | Scientific Review Officer |
|---|---|---|
| F01A | Fellowships: Brain Disorders and Related Neurosciences | Dr. Vilen Movsesyan |
| F01B | Fellowships: Learning a… Neurosciences | Dr. Susan Gillmor |
| F02A | Fellowships: | Dr. Mei Qin |
| F02B | Fellowships: Sensory | Dr. Sharon Low |
| F03A | Fellowships: Neurodevelopment, Synaptic Plasticity and Neurodegeneration | Dr. Mary Schueler |
| F03B | Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience | Dr. Sussan Paydar |
| F04A | Fellowships: Chemistry, Biochemistry and Biophysics A | Dr. David Jollie |
| F04B | Fellowships: Chemistry, Biochemistry and Biophysics B | Dr. Sudha Veeraraghavan |
| F05-D | Fellowships: Cell Biology, Developmental Biology, and Bioengineering | Dr. Alexander Gubin |
| F05-U | Fellowships: Cell Biology, Developmental Biology, and Bioengineering | Dr. Raj Krishnaraju |
| F06 | …Nutrition and Reproductive Sciences | Dr. Elaine Sierra-Rivera |
| F07 | | Dr. Liying Guo |
| F08 | | Dr. Lystranne Maynard Smith |
| F09A | Fellowships: Oncological Sciences | Dr. Reigh-Yi Lin |
| F09B | Fellowships: Oncological Sciences | Dr. Jian Cao |
| F09C | Fellowships: Oncological Sciences | Dr. Sarita Sastry |
| F10A | Fellowships: Physiology and Pathobiology of Cardiovascular and Respiratory Systems | Dr. Richard Schneiderman |
| F10B | Fellowships: Musculoskeletal and Oral Sciences, Imaging, Surgery, and Informatics | Dr. Anshumali Chaudhari |
| F10C | Fellowships: Physiology and Pathobiology of the Vascular and Hematological Systems | Dr. Katherine Malinda |

SRO is not a program officer-
*do not contact*

See Roster -
*do not contact*
*Review expertise*

# What happens at application review?

- Reviewers read and submit initial scores
- NIH 1 (great) to 9 (not great); usu don’t discuss higher than 5
- Present/ discuss your application in about 15 minutes
- Whole group scores
- Run by Scientific Review Officer (NIH staff)
- Often Program Officer attends

# NIH Scoring Rubric

| Impact | Score | Descriptor | Additional Guidance on Strengths/Weaknesses |
|---|---|---|---|
| High | 1 | Exceptional | Exceptionally strong with essentially no weaknesses |
| | 2 | Outstanding | Extremely strong with negligible weaknesses |
| | 3 | Excellent | Very strong with only some minor weaknesses |
| Medium | 4 | Very Good | Strong but with numerous minor weaknesses |
| | 5 | Good | Strong but with at least one moderate weakness |
| | 6 | Satisfactory | Some strengths but also some moderate weaknesses |
| Low | 7 | Fair | Some strengths but with at least one major weakness |
| | 8 | Marginal | A few strengths and a few major weaknesses |
| | 9 | Poor | Very few strengths and numerous major weaknesses |

# Application Review Process

Reviewers

- Use scoring rubric, bullet strengths and weaknesses
- provide initial overall impact score
- describe Strengths & Weaknesses at mtg
- provide final scores

Entire study section votes

avg x 10 = Impact Score

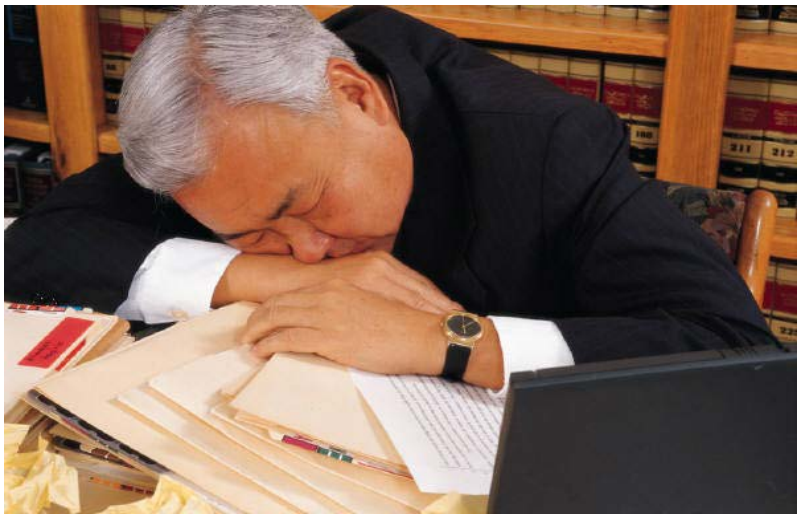
avg over study sections => Percentile

Summary statement compiled by SRO using reviewer critiques

# Write Application for Reviewers

## Reviewers are:

- Smart
- Accomplished
- Dedicated
- Fair



- Busy
- Overworked
- Skeptical
- May not know details

See member rosters of NIH Center for Scientific Review

Always use topic sentences to summarize main points
Write clearly, concisely, without errors
Address review criteria

# Address Review Criteria in FOA

Your summary statement will contain criterion scores

Fellowship Applicant
Sponsors, collab's, consultants
Research training plan
Training potential
Institutional Envir and Commitment

Scored by each reviewer

Overall impact score is not the average!

Fellowship Applicant: 1
Sponsors, Collaborators, and Consultants: 1
Research Training Plan: 2
Training Potential: 2
Institutional Environment & Commitment to Training: 1

Different reviewers same fellowship

Fellowship Applicant: 2
Sponsors, Collaborators, and Consultants: 4
Research Training Plan: 4
Training Potential: 2
Institutional Environment & Commitment to Training: 1

# Common Errors

1. Little significance to work
2. Project is not innovative/ incremental advance
3. Grantsmanship: poorly written/legends missing, no citations
4. Methods not feasible
5. Faulty strategy: ambitious/ unfocused/ dependent aims
6. Does not test hypothesis
7. Modest training potential
8. Weak letters of recommendation, support
9. Modest sponsor experience, funding

Some are easy to address, others need complete re-design

**SUMMARY STATEMENT**
**( Privileged Communication )**

**PROGRAM CONTACT:**
**Michele McGuirl**
**240-276-5360**
**mcguirlma@mail.nih.gov**

***Release Date:*** **12/03/2015**

***Application Number:*** **1 F31 CA206236-01**

**Fan, Jean**
**President and Fellows of Harvard College**
**260 Longwood Ave**
**TMEC 432**
**Boston, MA 02115-5701**

***Review Group:*** **ZRG1 F09A-D (20)**
**Center for Scientific Review Special Emphasis Panel**
**Fellowships: Oncology**

***Meeting Date:*** **11/05/2015**
***Council:*** **JAN 2016** ***PCC:*** **O6TR**
***Requested Start:***

***Project Title:*** **Computational Analysis of Subclonal Evolution in Chronic Lymphocytic Leukemia**

***Requested:*** **3 years**

***Sponsor:*** **Kharchenko, Peter V**
***Department:*** **Division of Medical Sciences**
***Organization:*** **HARVARD MEDICAL SCHOOL**
***City, State:*** **BOSTON MASSACHUSETTS**

***SRG Action:*** **Impact Score: 26 Percentile: 19**
***Next Steps:*** **Visit http://grants.nih.gov/grants/next_steps.htm**
***Human Subjects:*** **10-No human subjects involved**
***Animal Subjects:*** **10-No live vertebrate animals involved for competing appl.**

Jean Fan F31 CA released 11/2015
https://jef.works/assets/docs/f31/F31CA206236-01.PDF

**1F31CA206236-01 Fan, Jean**

**RESUME AND SUMMARY OF DISCUSSION:** This F31 fellowsh
promising student Jean Fan, who proposes to develop statistical met
to analyze single cell RNA-seq data derived from CLL patient samples.
motivated applicant is recipient of many awards, has stellar academic and ex
records.
The reference letters are extremely laudable, emphasizing high level of her creativity, research commitment and strong leadership drive. Strong computational training environment and resources at Harvard were the additional score-driving strengths. The sponsor is an expert in computational analysis of genomic and epigenetic data sets and has solid funding. Very limited sponsor's training record is mitigated by the addition of a highly accomplished co-sponsor on the mentoring team. The proposed research plan leverages sponsors' and collaborators' funded work and extends it to an important new area. One of the assigned reviewers raised concerns that the proposed aims are entirely phenomenological and do not put the specific hypothesis to any experimental validation test, and that there is only incremental benefit from training perspective for the applicant who already possesses very strong computational skills. During the thorough discussion the panel remained divided and enthusiasm for the proposal ranged from very good to exceptional. The committee voted and concluded that a fellowship award will likely have a high impact on the future scientific career of Ms. Fan as an independent investigator.

**DESCRIPTION (provided by applicant):** Intratumor genetic and tran
common feature across diverse cancer types, including. CLL is a p
and transcriptional heterogeneity along with a highly variable disease

Summary by SRO from discussion IMPT!

Your Abstract, verbatim

**Another summary of discussion**:

In this application, the fellowship candidate proposes to investigate antibody-dependent cellular cytotoxicity (ADCC) in HIV-infected patients do determine the extent of protection that ADCC provides. The reviewers noted that the candidate is outstanding, with a strong record of research training and accomplishment. The candidate appears to be highly motivated. Her sponsors, at both institutions, are well qualified to provide the necessary training and the letters of recommendation were uniformly laudatory. Minor weaknesses of the application included the ambitious research plan to be accomplished in two years, the risk of conducting the research at two sites, and the failure to address pitfalls and alternatives of the research project. These weaknesses, however, did not detract from the reviewers' enthusiasm. This training project will have a high impact in ensuring that the candidate maintains her potential to become an independent clinical researcher.

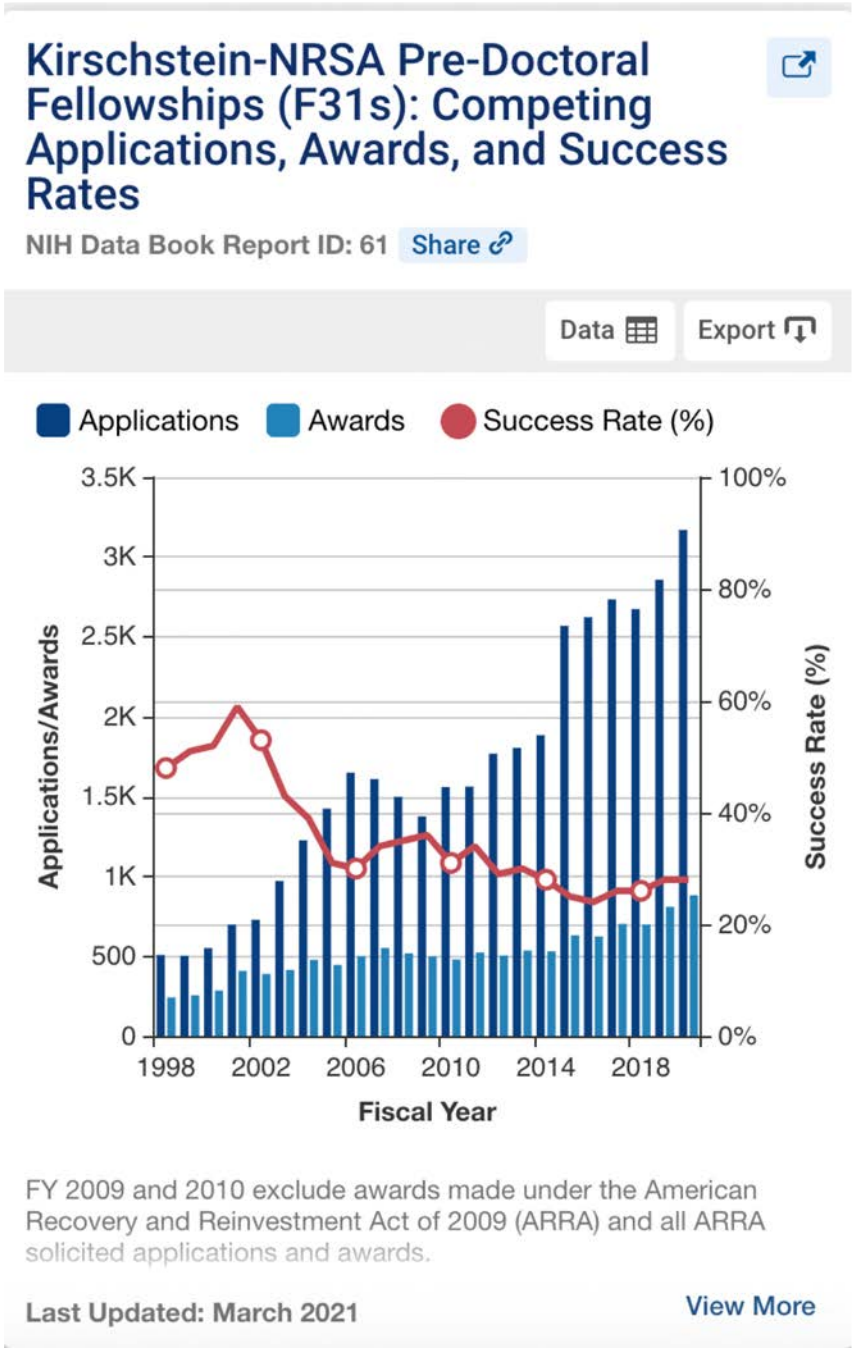
<u>UAb Grants Library-</u>

examples of F,

summary statements

Introductions for revised applications

# Many applications get funded on the A1 revision




NIH Data Book
Research
Workforce

applications
resubmitted
count as one

# Different Institutes support fellowships

Scored & unscored

Resubmit, count as 1

| Fiscal Year | Activity Code | NIH Institute/Center | Number of Applications Reviewed | Number of Applications Awarded | Success Rate[1] | Total Funding[2] |
|---|---|---|---|---|---|---|
| **2018** | **F30** | **Activity Total** | **576** | **244** | **42.4%** | **$9,957,294** |
| 2018 | F31 | NCCIH**** | 14 | 6 | 42.9% | $214,547 |
| 2018 | F31 | NCI | 367 | 104 | 28.3% | $4,083,988 |
| 2018 | F31 | NEI | 56 | 17 | 30.4% | $714,724 |
| 2018 | F31 | NHGRI | 8 | 1 | 12.5% | $38,767 |
| 2018 | F31 | NHLBI | 214 | 89 | 41.6% | $3,495,967 |
| 2018 | F31 | NIA | 106 | 28 | 26.4% | $1,088,187 |
| 2018 | F31 | NIAAA | 71 | 30 | 42.3% | $1,186,524 |
| 2018 | F31 | NIAID | 325 | 38 | 11.7% | $1,470,618 |
| 2018 | F31 | NIAMS | 59 | 15 | 25.4% | $600,490 |
| 2018 | F31 | NIBIB | 15 | 5 | 33.3% | $192,770 |
| 2018 | F31 | NICHD | 128 | 39 | 30.5% | $1,521,735 |
| 2018 | F31 | NIDA | 95 | 28 | 29.5% | $1,080,314 |
| 2018 | F31 | NIDCD | 72 | 22 | 30.6% | $829,291 |
| 2018 | F31 | NIDCR | 28 | 18 | 64.3% | $630,826 |
| 2018 | F31 | NIDDK | 172 | 53 | 30.8% | $1,993,026 |
| 2018 | F31 | NIEHS | 56 | 13 | 23.2% | $471,710 |
| 2018 | F31 | NIGMS | 282 | 34 | 12.1% | $1,253,228 |
| 2018 | F31 | NIMH | 219 | 53 | 24.2% | $2,136,692 |
| 2018 | F31 | NIMHD*** | 20 | 5 | 25.0% | $210,722 |
| 2018 | F31 | NINDS | 324 | 85 | 26.2% | $3,302,734 |

NIH Success Rates https://report.nih.gov/success_rates/

# If it’s awarded

NIH contacts Sponsored Projects
Just in time
Start-date? Sign activation notice
Notice of Award to Institution
GW creates spending account number
You write progress report for each year of award

# What if it is not paid?

See score eRA Commons, usually within a week
Do not contact your Program Officer--yet
Summary statement posted 2-4 weeks
Read fast, then share and reflect
Then contact program officer
Resubmit revised application
One page Introduction is KEY

# Think about the resubmission

Introduction 1 page
Respond to summary statement-big picture

Mark portions of all documents that you changed (eg left bar in margin)

Reviewers get your previous summary statement, but not your previous application

Often one reviewer in common on both first and second submission

Same submission dates for re-submission

# 1 page Introduction--KEY

**Respect the reviewers** and thank them for their input to strengthen your proposal. Repeat any laudatory remarks, acknowledge criticisms and provide overall responses (new data, clarify support, describe updated aim, etc).

**Make it clear what changes you have made**, and make it easy to locate them in the text. Do not re-litigate. Reviewers will read your responses and check for your revisions.

**Add in new information**. It's ok to make changes outside of what the reviewers suggested. If it doesn't address a specific concern, though, don't count on it to make up for other critiques.

## INTRODUCTION TO REVISED APPLICATION

We appreciate the reviewers' comments concerning the original application. Since that submission, I have made substantial progress in my training program and in my research project. In particular, I have passed my qualifying examination, been admitted to candidacy, and completed experiments critical to the underlying hypothesis of my proposal. This progress has allowed me to better focus my proposal and to address many of the critiques from the original review. In the sections below, I address major comments from the reviewers. Following that, my mentor addresses sponsor-related issues.

A particular issue I would like to address involves my grades, as more than one reviewer commented on this aspect of my record. It was correctly noted that I received one A, one C (Virology), and the remainder Bs in my first year graduate courses. One course (Microbial Pathogenesis) was also listed as incomplete. During spring 2011, I had to take a leave of absence due to the death of my mother. This leave occurred at the end of the Virology course and during Microbial Pathogenesis, resulting in the C and Incomplete grades. In my second year, I completed both courses, receiving an "A" in each (denoted in my biosketch with astericks).

A major criticism of the proposal was the development and organization of the specific aims and the lack of depth. In the last year, I have used the *Streptococcus pneumoniae* D39 strain to: demonstrate that *spxB* deletion and $H_2O_2$ affect capsule production; gain evidence that control is posttranslational; and show a role for SpxB in nasopharyngeal colonization of mice. I have also shown $H_2O_2$ alters capsule production in a second *S. pneumoniae* strain. These results have provided support for my hypothesis and allowed me to significantly reorganize the aims and propose additional studies to address the mechanism(s) of control. I have also provided further consideration of alternative strategies and potential problems.

The revision has been extensively reorganized and rewritten. Only changes representing new information, new data, or specific responses to critiques are indicated (by a line in the margin).

**Critique 1 -** *Alternative model, role of SpxB-Pta-AckA pathway in expression of TCS regulons* – alterations in