Getting an NIH Pre-Doc Fellowship (F30/F31)

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Outline

- Why write grants
- Intro to the NIH and types of NIH funding
- The F30/F31 main sections
- NIH submission and review process
- Resources for preparing your grant application

Why write grants

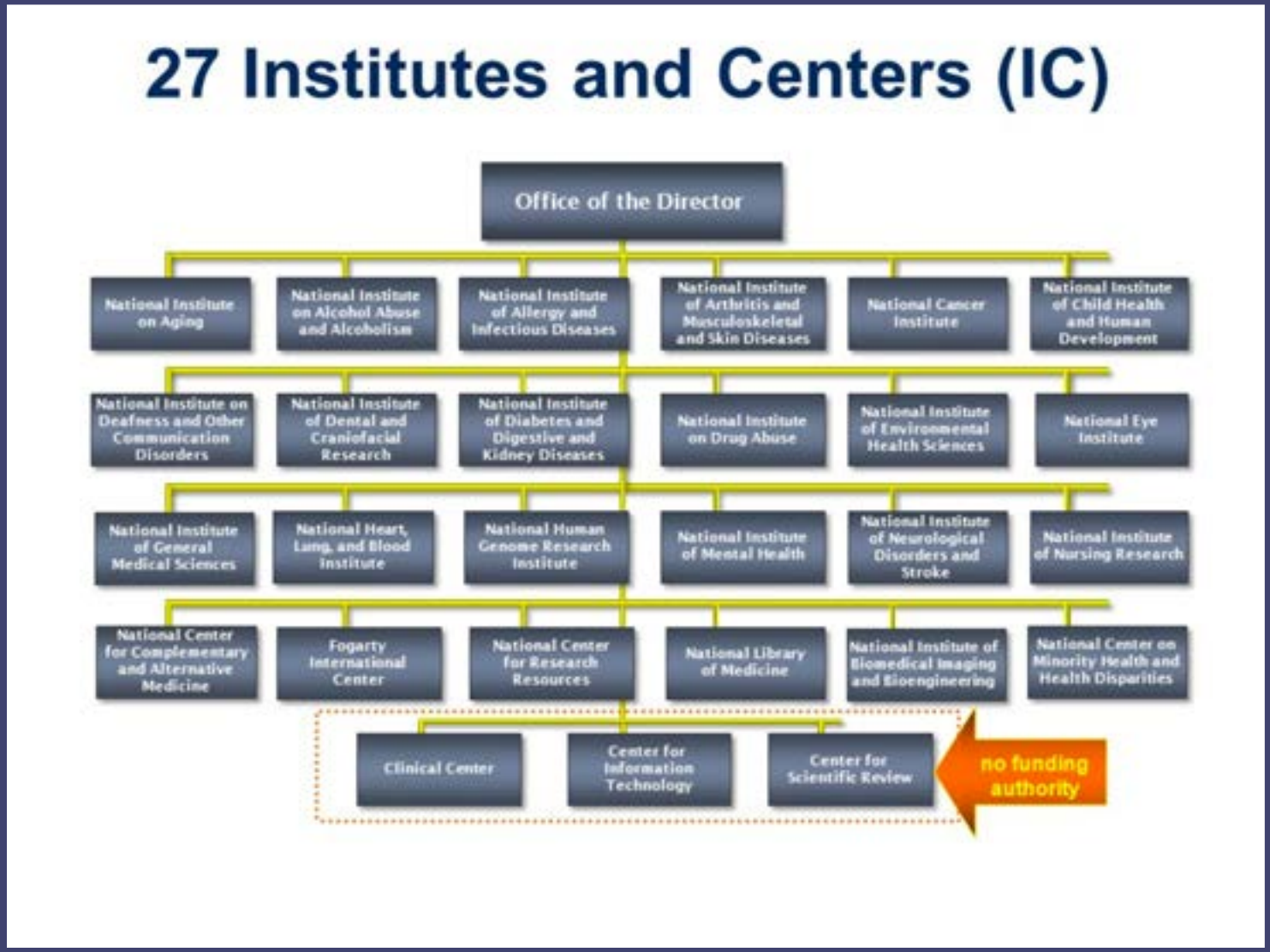
- Gives you time to update yourself on the literature – be an expert in the field
- Forces you to examine what is most important about your research – why anyone else should care and give you taxpayer (or foundation) money for it
- Forces you to communicate succinctly and logically
- Fosters new collaborations
- To get practice early on
- Establishes your credibility
- $

Lots of good related ideas
→ Clear path forward

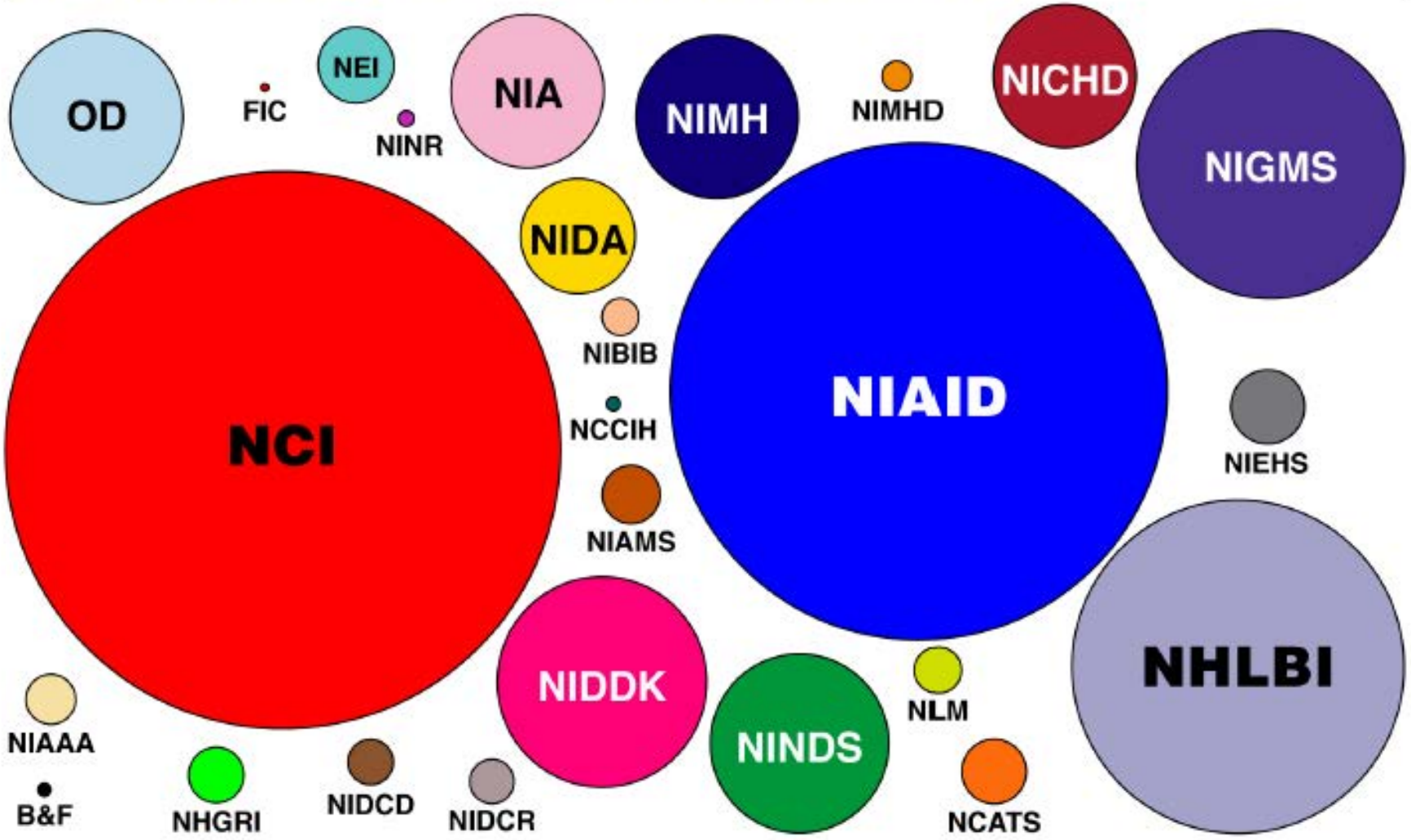
National Institutes of Health

- "NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability."
- $37.3 billion
  - 80% grants
  - 10% intramural research
- 300,000 researchers have NIH grant awards

National Institutes of Health



National Institutes of Health $$$



Common types of NIH funding

	Description / Notes
Graduate student	
F30 / F31 / F31 Diversity	Training, up to 5 years
T32	Training - Apply to institution (45 at UCSF)
R36	Dissertation award - Only NIDA, NIA, and AHRQ
Postdoctoral fellow	
F32	Training, up to 3 years, T32 years subtracted
T32	Training - Apply to institution (45 at UCSF)
K99	Mentored research
LRP	Loan repayment (anytime after MD/DO/PhD degree)
Faculty	
K01, K08, K23	Mentored career development
R00, R01, R03, R21, R34, U01	Investigator initiated research, cooperative research (U01)
P01 / P30	Center grants

F30 / F31 facts

https://researchtraining.nih.gov/programs/fellowships

- 3 types
  - F30 – dual degrees (e.g. MD/PhD)
  - F31 – PhDs
  - F31 Diversity –under-represented groups / persons with disabilities
- These are a type of NRSA (National Research Service Awards)
- Up to 5 years of support
- Provide stipends ($24K/year) and tuition (up to $16K/year), other $ ($4K/year)
- Good success rates in 2017 (report.nih.gov/success_rates) :
  - F30: 214/545 (39%) (24 at UCSF)
  - F31: 703 / 2734 (26%) (45 at UCSF)

Are you a good candidate for a F30 / F31?

- Your trajectory : An investment in YOU
  - You are expected to want to have a career as an NIH-funded scientist
    - Post-doc, faculty position doing independent research
    - For F30 – interested in a career as a physician-scientist or other clinician-scientist
- Do you have the capacity to get trained in your proposed area?
  - Your sponsors (mentors)
  - Your institution
  - You
- Do you have an interesting / important research idea, sound methodology, feasibility?

Your team for a F award

- Primary sponsor who is a senior investigator with a track-record of NIH funding (i.e. Associate or Full Professor)
  - Mentored others, preferably other F awardees
  - Should be able to mentor you in the content area *and* in career development
  - Include a co-sponsor if needed to fill a gap, e.g. if sponsor is very busy
- Include consultants who will complement the primary sponsor's strengths.
- Every person included should have a unique role.
- Keep your team small (3-5 members).
- Reserve advisors outside your current work for references (writing confidential letters in support of your application)

F30/F31 main components and page limits

Section of Application	Page Limits
Project Summary/Abstract	30 lines of text
Project Narrative	Three sentences
Introduction to Resubmission or Revision Application (when applicable)	1
Applicant's Background and Goals for Fellowship Training	6
Specific Aims	1
Research Strategy	6
Respective Contributions	1
Selection of Sponsor and Institution	1
Training in the Responsible Conduct of Research	1
Sponsor and Co-Sponsor Statements	6
Letters of Support from Collaborators, Contributors, and Consultants	6
Description of Institutional Environment and Commitment to Training	2
Applications for Concurrent Support (when applicable)	1
Biographical Sketch (NOTE: Format for applicant differs from sponsors')	5 (each)
Letters of reference (3-5 letters)	No limit

Applicant's Background and Goals for Fellowship Training (6 pages)

- Doctoral Dissertation and Research Experience
- Training Goals and Objectives
- Activities Planned Under Award

Applicant's Background and Goals for Fellowship Training

- Doctoral Dissertation and Research Experience
  - Summarize research experience in chronological order
  - Tell an academic story—Who are you as a researcher? How did you get here? Where do you want to go next?
  - If no research experience, describe other scientific experiences.

Applicant's Background and Goals for Fellowship Training

- Training Goals and Objectives
  - Describe your overall long-term training/career goals and how the fellowship will enable the attainment of these goals
  - Have 2 or 3 distinct areas in which you need training that are outside of your PhD program. For example:
    - Advanced Statistical Methods for Causal Inference
    - Theoretical and Historical Frameworks for Social Determinants of Health and Substance Use
    - Social Policy and Evidence-Based Policy Processes
  - Identify the skills, theories, conceptual approaches, etc. to be learned or enhanced by the broader goals.

Applicant's Background and Goals for Fellowship Training

- Your training goals and activities should be *uniquely* suited to you.
  - Propose a mix of didactic training and “hands- on” research experience that make perfect sense for you (and only you), given your previous training and research experience and your career goals.
  - Include classes, workshops, and conferences that are not a standard part of your program
  - You can propose to use training resources outside UCSF, but choose the best available.

Applicant's Background and Goals for Fellowship Training

- Activities Planned Under Award
  - Explicit list of training activities, including the research activities
  - Best to present this with a table (by each year)
    - Briefly describe each training activity (research, coursework, professional development, clinical activities) with bullet points
    - Organize by training goal or by format
  - Include percent time you will devote to each activity (or group of activities) which adds up to 100% per year.
    - Example (Year 1): 70% research; 10% teaching; 20% other training activities such as conferences, seminars, etc.

Specific Aims and Research Strategy

- You will likely spend the most time (around 50%) on these sections
- The research plan for a F grant is a *training vehicle*.
  - The research plan should provide an opportunity to acquire new skills and should be well integrated with your training goals and activities.
  - Include explicit references to training goals within this section (e.g. methods that you will receive training on before doing).
  - The research plan should be viewed as a precursor for a subsequent F32 or K application.
- Research plan scope: Not too little, not too much
  - Project should move the field forward (is it publishable?)
  - Must be distinct from sponsor's research, though leverage it.
  - Plan must be feasible given the resources and time needed to accomplish the research

Specific Aims (1 page)

- What most reviewers read first
- May be the only page that reviewer reads
- First thing you work on but revise and re-revise
- Common to all grant applications, but for training grants includes reference to how the research will be a vehicle for your training goals
- Circulate drafts of this page to find out if the NIH is interested, to get early concept reviews, interest consultants, etc.

Specific Aims main components

- The overall problem (e.g. debilitating neurodegenerative disease)
- The more specific problem (e.g. poor diagnostics)
- What is known about how to solve the problem
- Why hasn't it been solved – what is the knowledge gap?
- How you propose to solve (or take steps toward solving) the problem
- Aims – main things you will accomplish
  - Best if hypothesis driven
- Very briefly describe how you will accomplish the aims (e.g. study design, experiments)
- How this research will serve as a training vehicle to meet your goals

Specific Aims common structure

- Paragraph 1:
  - What is the problem (disease) – how many people does it affect, how debilitating, how costly, etc.? What is the aspect of the problem that needs a solution?
  - What is known about how to solve this problem?
- Paragraph 2:
  - What is the knowledge gap that has prevented this problem from being solved?
  - What is your solution to the knowledge gap?
  - What are your long-term goals towards solving the problem?
- Paragraph 3:
  - What are your short-term goals for this study – what will you do to begin to bridge the knowledge gap?
  - What type of study/studies will you do; what are your resources?

Specific Aims common structure, cont.

- The Specific Aims themselves:
  - 2-4 aims
  - The aims should break down of the proposed project in terms of knowledge to be gained.
  - Each aim should have a hypotheses if possible.
  - Include one sentence or phrase about the research design in each aim if the aims have different methodologies.
- Final paragraph:
  - Innovation and expected impact in the field or on health policy or outcomes.
  - What new research / further proposals this will lead to.
  - How conducting this research will meet your training goals.

Research Strategy Significance section

- Usually 1-2 pages
- Expand on the Specific Aims paragraphs 1+2
  - Review the literature that describes the health problem
  - Establish the gap in the literature / the need for this work
- SCIENTIFIC PREMISE – strengths and weaknesses of prior literature (should point to the gap), including preliminary data on the topic (work by you or your sponsor)
- Expected research contribution: how the results of the proposed study (or the long-term goals) will change practice, health, etc.
- Note how the proposal is relevant to an NIH priority (if true)
- References are NOT included in the Research Strategy 6-page limit

Research Strategy Approach section

- Usually 3-4 pages
- Your preliminary data showing feasibility of the approaches
- The nuts and bolts of what you are going to do
  - Needs to have enough detail to convince reviewers of feasibility in your hands
  - Includes data collection, statistical power, statistical analyses, potential pitfalls, timeline, and future directions
- Step by step methods with tables and figures, etc. Methods should be very clear to reader (almost like a written protocol)
- Be sure to address any potential red flag, like human/animal safety (even if it is addressed elsewhere in the application)
- Include potential pitfalls and solutions, a timeline, and future directions

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Suggested timeline

Time before deadline	What
3-6 months	Discuss with supervisor/mentor to get advice on your readiness, general direction of the proposal, appropriate institutes
3-4 months	Draft specific aims page, review with mentor, revise!
2-3 months	Contact NIH program official(s) for interest in your content area, your specific eligibility
	Confirm sponsor, identify and meet with co-sponsors and consultants, review aims with them
	Inform Research Service Coordinator (RSC) that you will be submitting – get timeline
1-3 months	Draft research and training sections, request biosketches (need to adapt), letters of reference, letters of support (need to draft), sponsors' section (may need to outline)
1 month	Get outside reviews, work with RSC on the remaining materials
2-3 days	Review all materials uploaded by RSC, RSC will do the final submission

NIH submission, review, and award timelines

Series	Description	Cycle 1	Cycle 2	Cycle 3
F Series Fellowships *new, renewal, resubmission*	**SUBMISSION: Individual National Research Service Awards (Standard)**	April 8	August 8	December 8
All *new, renewal, resubmission, revision*	**SUBMISSION: AIDS and AIDS-Related Applications**	May 7	September 7	January 7
All	Scientific Merit **Review**	June - July	October - November	February - March
All	Advisory Council Round	August or October	January	May
All	**Earliest Project Start Date**	September or December	April	July

F award NIH study section review criteria

https://grants.nih.gov/grants/peer/critiques/f.htm

- Fellowship applicant
- Sponsors, collaborators, and consultants
- Research training plan
- Training potential
- Institutional environment and commitment to training

NIH review process

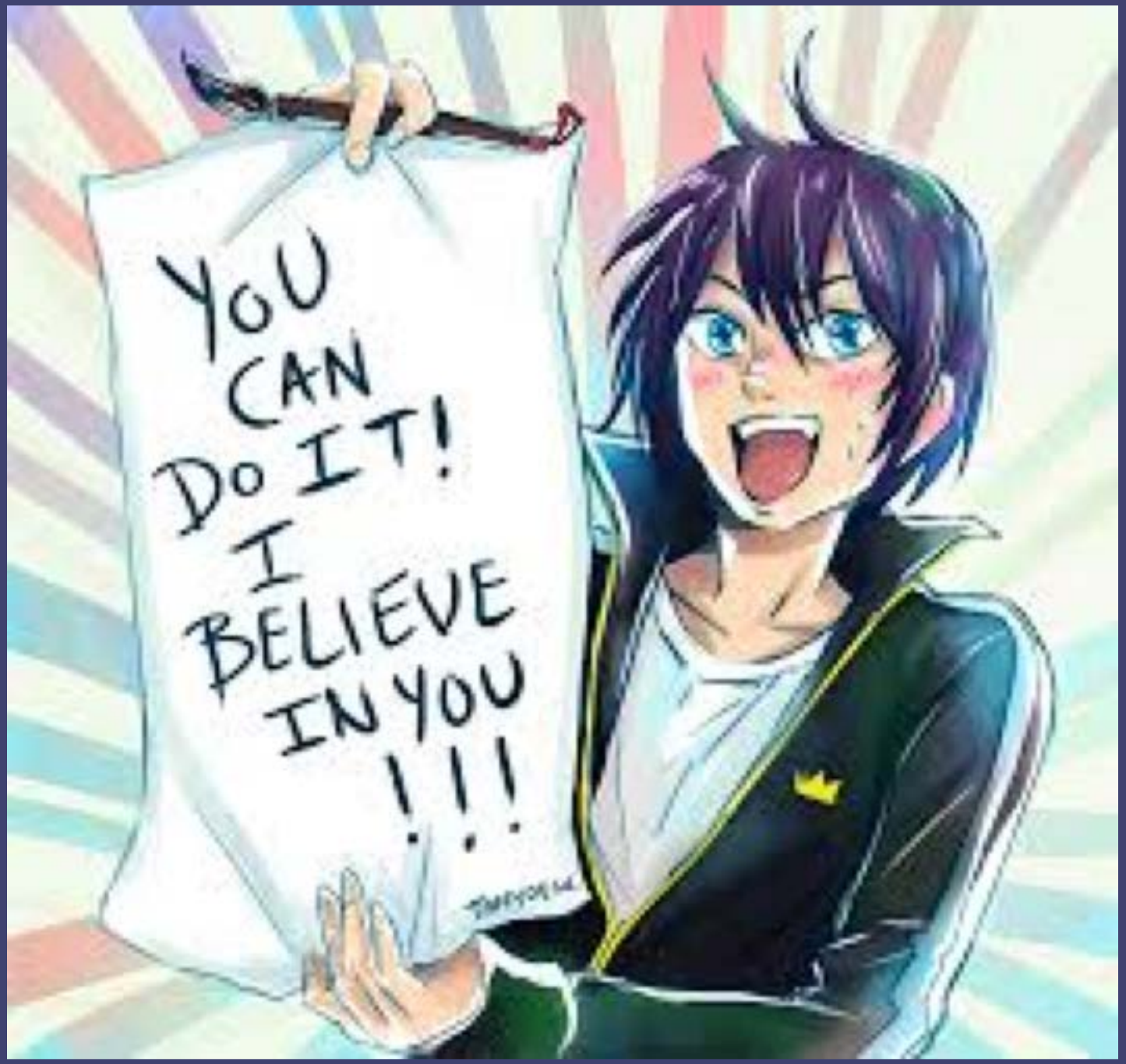
- There are 20 Fellowship review panels https://public.csr.nih.gov/studysections/fellowship/pages/default.aspx
- 3-4 reviewers get your proposal several weeks before study section
- They are asked to write up reviews: summary, and strengths and weaknesses of each of the 5 review criteria
- They will give you a score for each of the 5 criteria, and an overall "impact" score
  - Impact scores are NOT the weighted average of the 5 criterion scores
  - 1=perfect, 9=worst
  - The score you get is multiplied by 10 (so 10 is a perfect score)
- If preliminary scores from the reviewers make the cut (usually top 50-60%), your proposal will be discussed.
- During the study section meeting, the reviewers will present your proposal, there is a discussion, and all members vote on the final score
- You will get the reviewers' written comments, plus a one paragraph summary of the discussion (if discussed)

Grant writing resources

- Read others' successful proposals, including their summary statements and revisions
  - CTSI K library accelerate.ucsf.edu/funding/k-library
  - Hahn F31 library or take my grant writing course (http://ticr.ucsf.edu/courses/schedule/grant_writing_workshop.html)
  - NIH reporter projectreporter.nih.gov -- search on F31 and other fields and contact the PI
- Book: The Grant Application Writer's Workbook http://www.grantcentral.com/workbooks/national-institutes-of-health/ and in the library
- Course: EPI 258 - Grant Writing Workshop http://ticr.ucsf.edu/courses/schedule/grant_writing_workshop.html
  - Can access resources there, including a checklist of all the application items, with links to NIH instructions
  - Library of F31s (mostly clinical)
  - Class of 8 with feedback – usually room for 4-6 non Epi PhD students or postdocs, winter quarter

DO!

- Read others' successful grant proposals. If possible read their review sheets as well.
- Make your proposal easy to read. Clear short headings, judicious use of bolding or underlining (only a few per page), space between paragraphs.
- Get reviews of your concept early on and then get a peer review when it is mostly done.


YOU
CAN
DO IT!
I
BELIEVE
IN YOU
!!!

Queenofyourownlife.com

Somebody called her a
smarty pants and she thought,
"why yes, yes I am.
Thank you for noticing."

Queenisms™

Thank you!

Please feel free to contact me:

Judy.Hahn@ucsf.edu

UCSF
University of California
San Francisco

How to submit successful Pre-Doctoral Fellowship Applications at UCSF

Presenter: Sharon Louie
Research Management Services
Office of Sponsored Research

5/24/18

Introduction:
Research Management Services (RMS), Office of Sponsored Research (OSR)

RMS is here to help with your questions or concerns!

If you would like to apply, contact your Research Services Coordinator (RSC).

Contact Info:

Sharon Louie, Asst. Team Manager: 415-290-3478; Sharon.Louie@ucsf.edu

Office located at: 654 Minnesota St., Box 0892, San Francisco, CA 94107-3027

Presentation Outline

1) Overview of RMS services
2) Introduction to the eProposal System
3) National Institutes of Health (NIH) F30/F31 Applications

Introduction: RMS, Office of Sponsored Research

Office of Sponsored Research (https://osr.ucsf.edu/org-charts)		
Government Business Contracts (GBC):	Research Management Services (RMS):	Industry Contracts Division (ICD):
Federal, State, and City Contracts	Government and Non-Profit Grants	For Profit
Proposal Development, Contract Negotiation, and Award Acceptance	Awards team, previously known as Contracts and Grants	Contract Negotiation, and Award Acceptance

Overview of RMS Services – Proposal Development and Award Acceptance Services

Assigned Research Service Coordinator (RSC) will:

- Assist with New and Resubmission Applications.
- Assist with Progress Reports, Just-in-Time (JIT), post-submission materials, and any sponsor correspondence.
- Review program announcements, direct applicant in process and policies.
- Review grant applications for accuracy and completeness.
- Route completed application to the UCSF Institutional Official for approval.
- Assist with Award Set-Up.

Presentation Outline

1) Overview of RMS services
2) Introduction to eProposal System
3) National Institutes of Health (NIH) F30/F31 Application Timetable

Introduction to the eProposal System

eProposal: eProposal is UCSF's end-to-end system to support the full lifecycle of the pre-award proposal application process.

- It supports proposal development including budget, approval form, and electronic system-to-system submission where applicable.
- It includes online routing & approval to PIs, Mentors, and Department Chairs. eProposal is available via single sign-on at MyAccess.

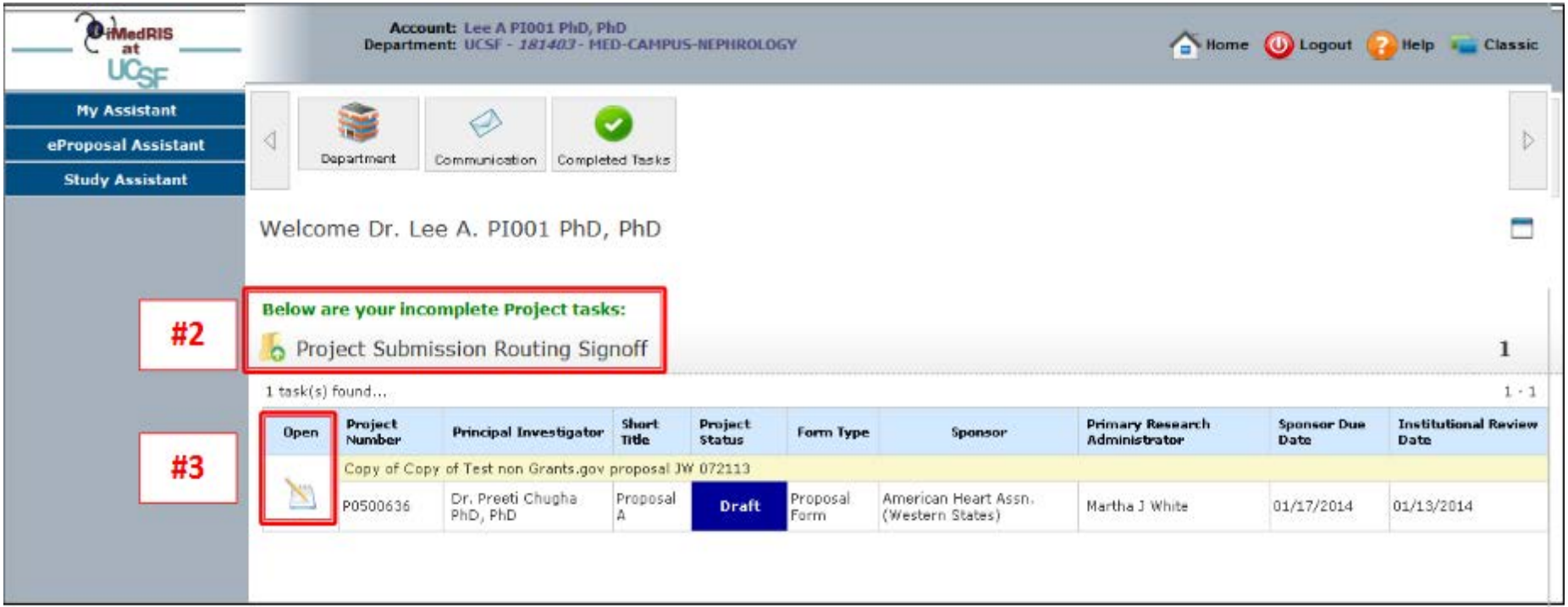
Introduction to the eProposal System: Review A Proposal

When a proposal is ready for you to review and approve, you will receive an email notification from iRIS with the subject line: *eProposal Action - Approval Required*.

- ***To Review and Approve the Proposal***

1. Access the “eProposal – iRIS” link from MyAccess at https://myaccess.ucsf.edu.
2. When you log on, you will see a ***Welcome*** screen. Click on the ***Project Submission Routing Signoff*** folder and select the proposal referenced in the notification to review and signoff.
3. Click on the ***Open*** icon.

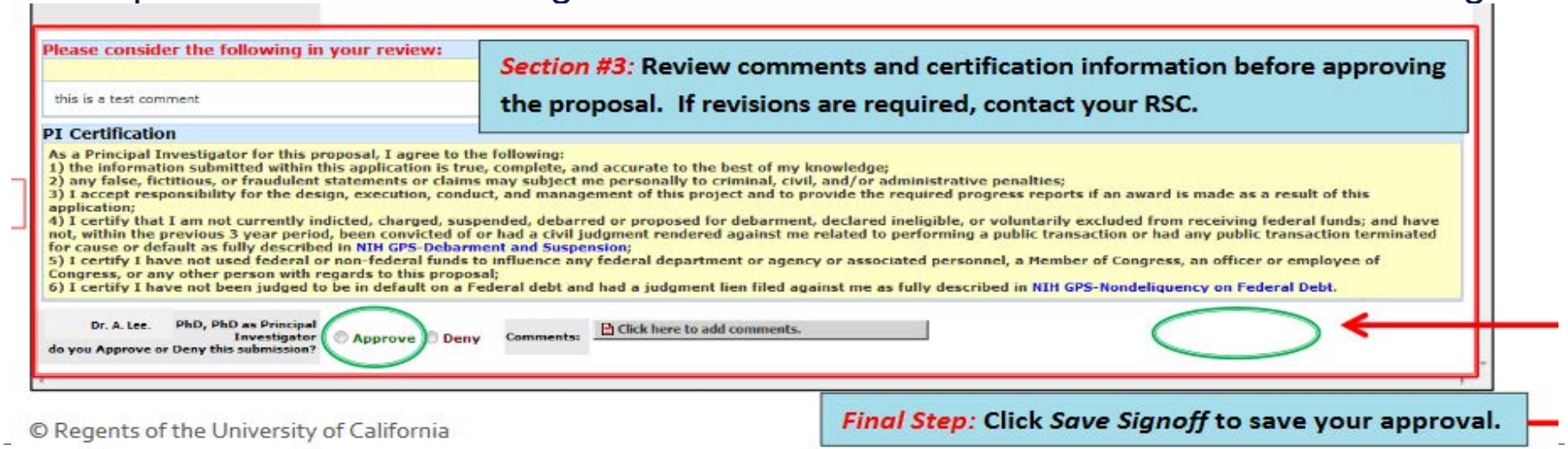
Introduction to the eProposal System: Review A Proposal



Introduction to the eProposal System: Review A Proposal

4. Review of Proposal Summary and Routing is Sequential

- PI and Mentor must sign off before the Department Chair/Chair Delegate will receive notification to go into iRIS to sign the proposal.
- Department Chair must sign off before the AOR will receive notification to sign.



Presentation Outline

1) Overview of RMS services
2) Introduction to eProposal System
3) National Institutes of Health (NIH) F30/F31 Application

NIH Due Dates for F30/F31 Applications (New and Resubmissions)

	Cycle I	Cycle II	Cycle III
Submission Deadline	**April 8th**	**August 8th**	**December 8th**
Scientific Merit Review	June – July	October – November	February - March
Advisory Council Round	August or October*	January	May
Earliest Project Start Date	September or December*	April	July

**Advisory Council Round for Cycle I applications may be August or October, and their earliest project start date may be September or December respectively.*

Suggested Timeline for Fellowship Proposal Development and Submission

- Start talking to your Mentor/Sponsor about your training plan and research idea to make sure your research idea is original and not already funded under the Mentor/Sponsor
- Identify 3-5 Referees to write your Reference Letters
- Consider submitting a new application for August 8th or December 8th deadline to receive scientific review feedback for a more competitive resubmission
- New or resubmission applications can be submitted in any of the deadlines of April 8th, August 8th, and/or December 8th

Phase 1: Planning the Application (At *least* 3 months prior to agency deadline)

1) Review the NIH Fellowship "Program Announcement" (PA), currently PA-18-673 for F30; PA-18-671 for F31
2) Notify Mentor and 3-5 Referees (confirm availability, give lead-time)
3) Example F30/F31 applications (colleagues, lab mates)
4) Plan/start your research plan, and meet with Mentor to:
   - Discuss your research and the details of your training plan
   - Identify the NIH "Institute/Center" (IC) to review/fund your application
5) Contact IC-specific program officer (determines if research is the right fit)

Phase 2: Preparing the Application (At *least* 1 month prior to agency deadline)

1) E-mail your RSC: Specify deadline, mentor name, departments, new or resubmission
2) Meet with your RSC: Submission process, application requirements, internal timeline
3) Establish an NIH eRA Commons account (RSC will do for you)
4) Bookmark the NIH "How to Apply – Application Guide" webpage: https://grants.nih.gov/grants/how-to-apply-application-guide.html
   - **Info**: Formatting, page limits, reference letters, Biosketches, etc.
   - **Application Guide**: Use "filtered" SF424 instructions for fellowships
5) Send NIH reference letter instructions to your referees

Phase 3: Submitting the Application (OSR review deadline and submit-to-NIH date)

1) OSR institutional review deadline:

- 5 whole business days prior to day of the NIH deadline
- Review for compliance with UCSF policies/NIH instructions
- RSC will request your documents ~1 week in advance of the OSR deadline

2) Submit to NIH:

- 2-3 business days prior to NIH deadline (avoid submitting day of deadline)
- RSC will request final documents 1-2 days in advance of submission date
- If travelling around the NIH deadline, submit prior to departure

Once your application is submitted…

1) **Correspondence from NIH**: Forward all NIH correspondence to your RSC immediately. Your RSC will assist you with responding to NIH.
2) **Post-Submission Materials:** Due ~30 days prior to peer review; news of articles accepted for publication (see NIH policy notice NOT-OD-17-066).
3) **Just-in-Time (JIT)**: NIH's request for additional information (IRB/IACUC approvals, Other Support, revised application sections); ~30-60 days prior to award start date.
4) **Conflict of Interest**: Look for an email from the UCSF Conflict of Interest Advisory Committee (COIAC), requesting that you complete financial disclosures
5) **Award Notice**: Your RSC will assist with getting award documents signed/submitted to NIH and facilitate with internal award set-up process.

Resubmission Applications

1) Resubmissions are allowed, and you can submit applications in “back to back” cycles.
2) Let your RSC know about your plans to resubmit ASAP (even if unsure).
3) Start working with Mentor to revise proposal and address reviewers’ comments raised in your reviewers’ summary statement.
4) Resubmissions require 1-page “Introduction” to address reviewers’ comments.
5) Notify your referees, as new Reference Letters need to be uploaded.
6) For unsuccessful resubmissions, NIH allows same idea to be submitted as a “new” application (see NIH policy notice NOT-OD-15-059 for more info) and contact RSC

Useful Resources

1) Program Announcement (PA-18-673) “Ruth L. Kirschstein National Research Service Awards (NRSA) for Students at Institutions Without NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)” http://grants.nih.gov/grants/guide/pa-files/PA-18-673.html
2) Program Announcement (PA-18-671) “Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Predoctoral Fellows (Parent F31)” http://grants.nih.gov/grants/guide/pa-files/PA-18-671.html
3) FY 2018 Stipends, Tuition/Fees and Other Budgetary Levels http://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-175 .html
4) NIH RePORTER: Review awarded F31 projects and/or review your topic of interest http://projectreporter.nih.gov/reporter.cfm
5) NIH Report Catalog: Check out the success rates of F31 applications http://www.report.nih.gov/catalog.aspx

6) FAQs for F31 Fellowships
http://grants.nih.gov/training/faq_fellowships.htm
7) NIH “All About Grants” podcasts (“Advice for New and Early Career Scientists”):
https://grants.nih.gov/news/virtual-learning/podcasts.htm#3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