

Preparing a Competitive Application for NIH-Fellowships

Graduate and Postdoctoral
Fellowship Workshop Series 2025

Session 4

September 17, 2025

Brady Liss

Grant Proposal Developer
Research Development

Slides will be made available!

- Many links throughout.
- Text heavy at times – don't worry about taking notes.

Please interrupt me and ask questions as needed!

- A lot of information in a short-time, and I sometimes speak quickly!
- I do include some breaks in the slides for questions.



Outline

1. NIH Brief Overview
2. NIH F31/32 in Detail
3. Application Strategies and Tips
4. Questions and Answers



Applying for Federal Grants in the New Administration



**PAY
ATTENTION**

Also!

For due dates before Jan. 25, 2025

Introduction

1. Fellowship Applicant
2. Sponsors, Collaborators, and Consultants
3. Research Training Plan
4. Training Potential
5. Institutional environment and Commitment to Training.

For due dates on or after Jan. 25, 2025

Introduction

1. Candidate's Preparedness and Potential
2. Research Training Plan
3. Commitment to Candidate

NIH Overview

1. NIH in general
2. NIH Budget/Funding and Grants
3. Institutes and Centers
4. Finding your Home and your Program Officer

National Institutes of Health (NIH)

- A part of the U.S. Department of Health and Human Services.
- The nation's **medical research** agency
- **Mission:** 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.
- Invests most of its nearly **\$48 billion budget** in medical research for the American people.



**National Institutes
of Health**

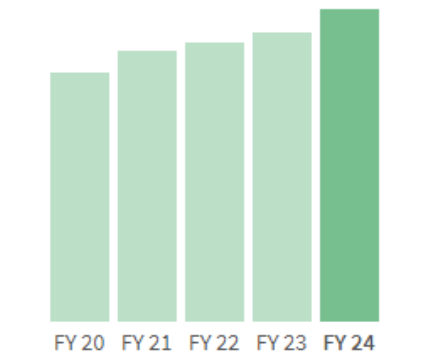
FY 2024 Summary

Data through 7/30/2024

How much funding is available to this agency?

\$3.07 Trillion
in budgetary resources

21.0% of the FY 2024 U.S. federal budget

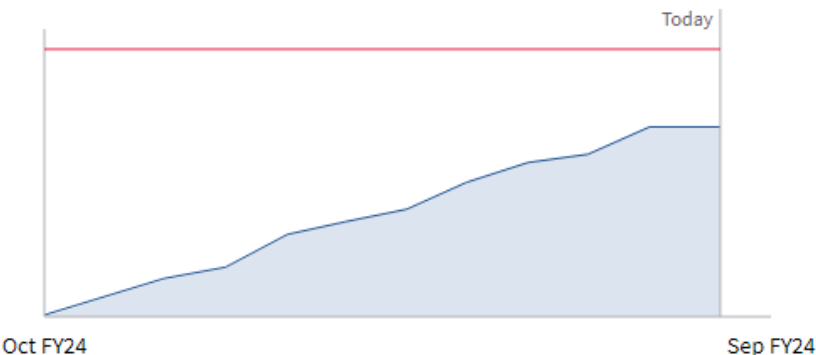


Total Budgetary Resources Over Time

How much has this agency planned to spend?

\$2.18 Trillion
in total obligations

71.2% of total budgetary resources



Total Obligations Over Time

How much has this agency planned to spend on awards?

\$1.64 Trillion
in award obligations

FY2024 - Total Financial Assistance Obligations: \$1.6T

Award Types	Award Obligations	% of Total
Grants	\$748,206,787,959	45.7%
Loans	\$0	0.0%
Direct Payments	\$855,725,254,314	52.3%
Other Financial Assistance	\$3,785,262,600	0.2%

<https://www.usaspending.gov/agency/department-of-health-and-human-services?fy=2024>

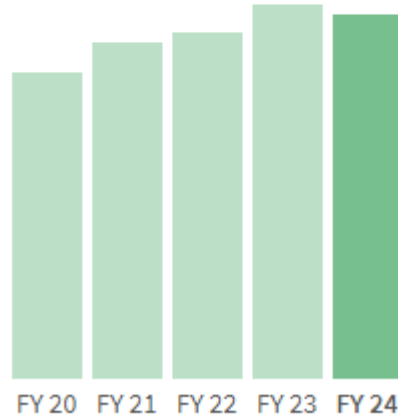


National Science Foundation (NSF)

How much funding is available to
this agency?

\$10.78 Billion
in budgetary resources

0.1% of the FY 2024 U.S. federal budget



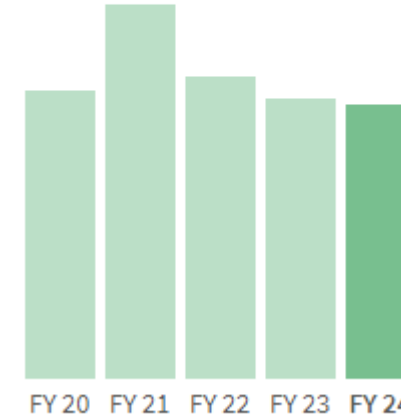
Total Budgetary Resources Over Time

National Endowment for the Humanities (NEH)

How much funding is available to
this agency?

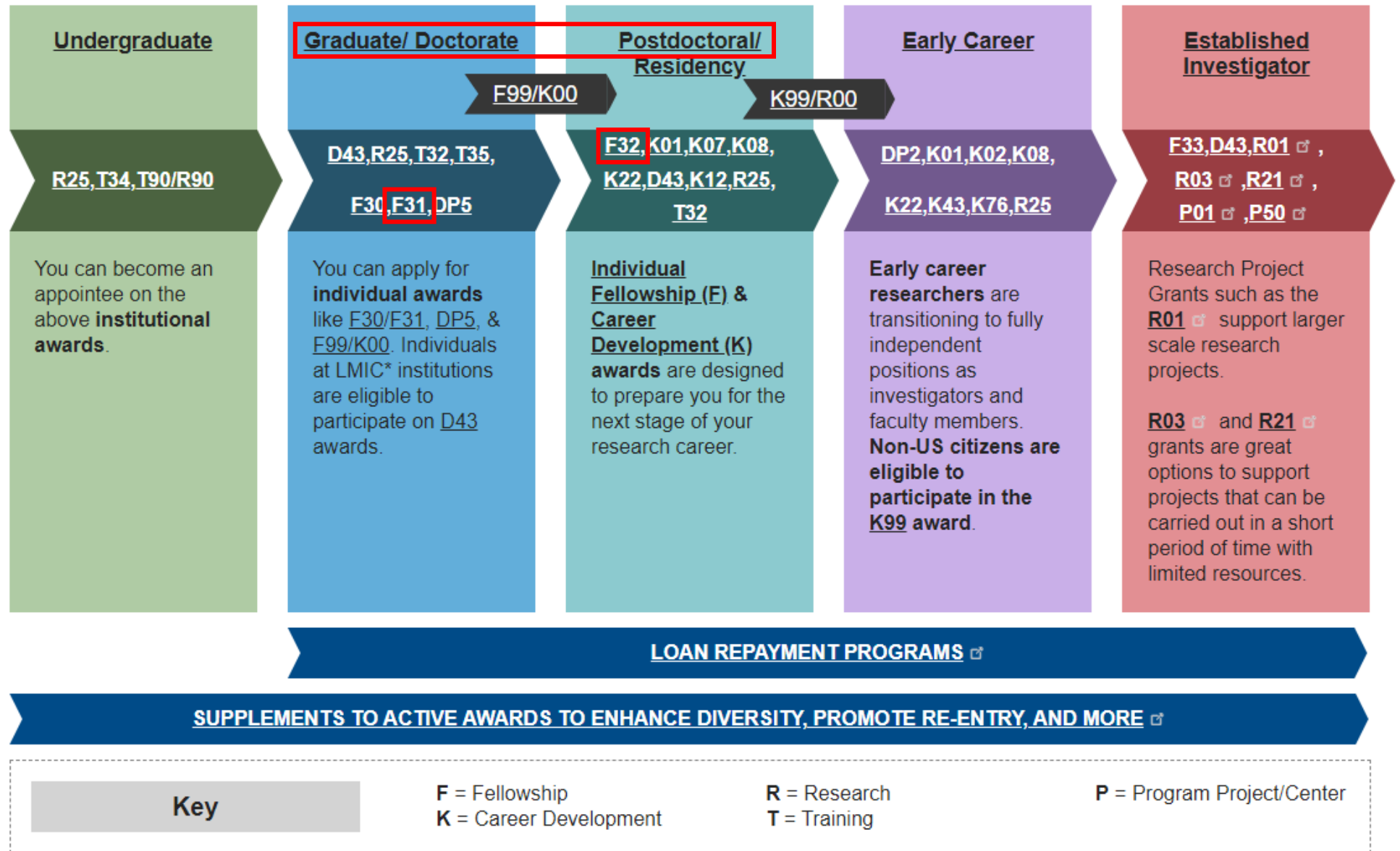
\$250.31 Million
in budgetary resources

0.0% of the FY 2024 U.S. federal budget



Total Budgetary Resources Over Time

NIH Funding Programs by Career Stage

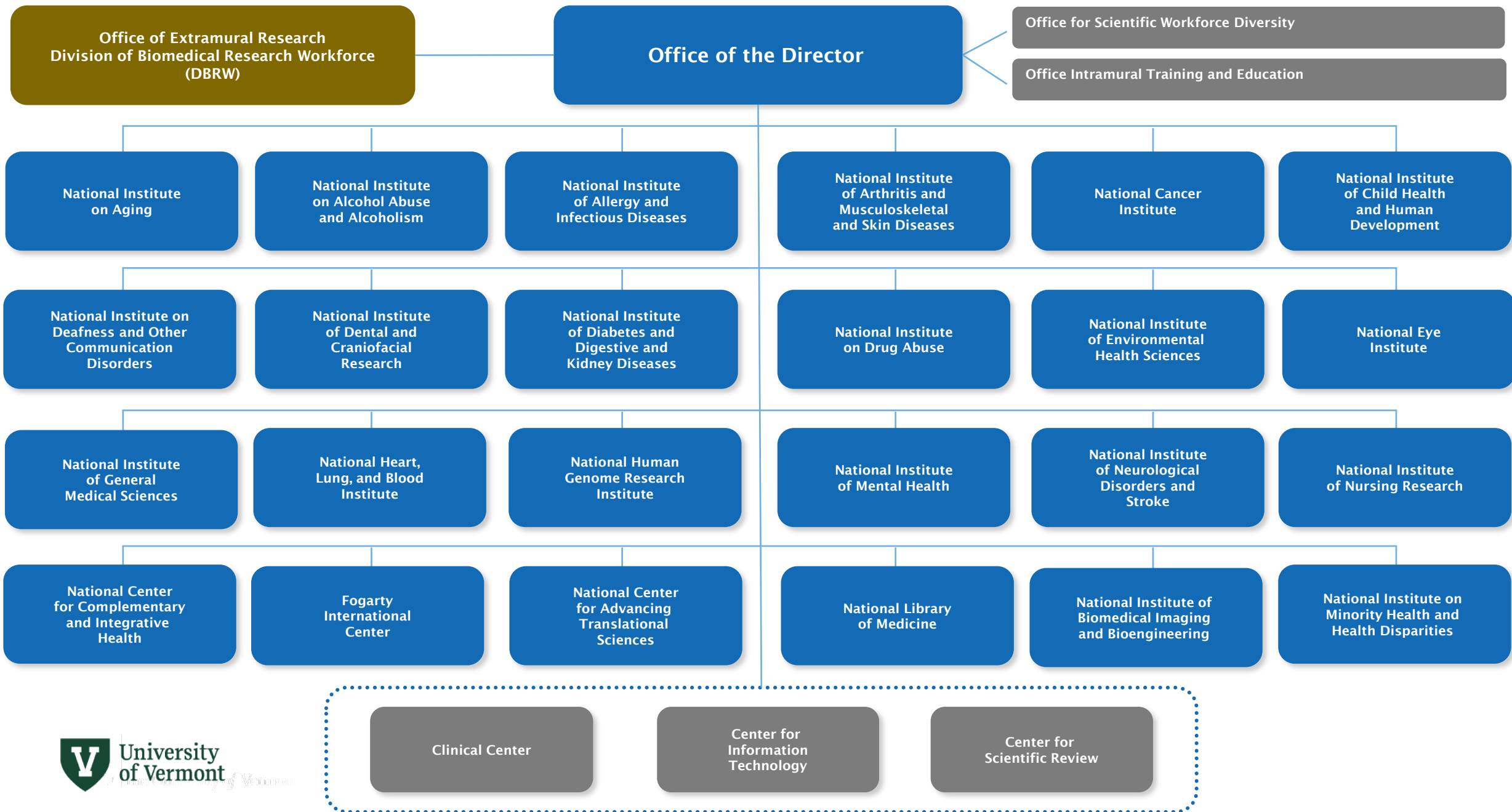


NIH Institutes & Centers (ICs)

- **27 Institutes and Centers**, each with a specific research agenda, often focusing on particular diseases or body systems.
- Proposals are **submitted to a specific IC!**
- Selecting the correct IC is critical.
 - Research topics may overlap several ICs.
 - Example: Colon Cancer – National Cancer Institute or National Institute of Diabetes and Digestive and Kidney Diseases?

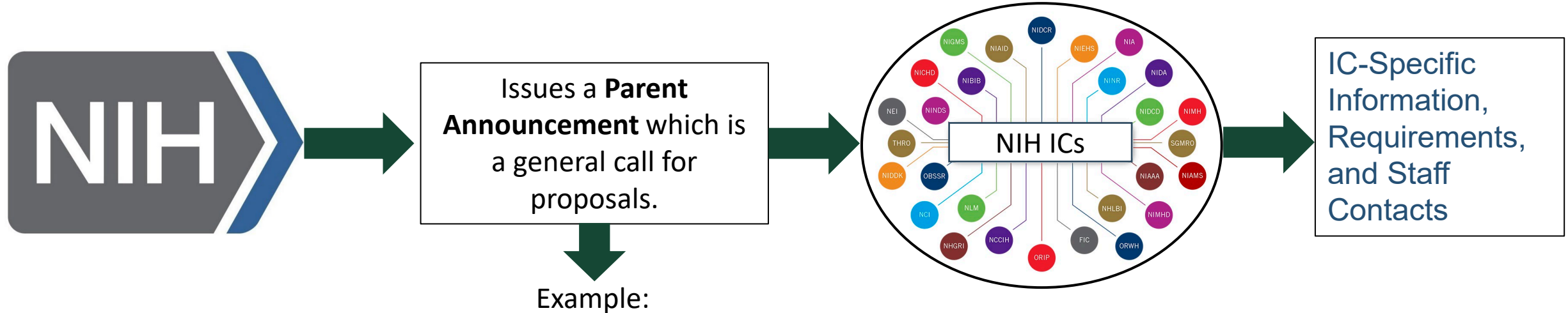
[List of ICs with Descriptions](#)

NCI	NEI	NHLBI
NHGRI	NIA	NIAAA
NIAID	NIAMS	NIBIB
NICHD	NIDCD	NIDCR
NIDDK	NIDA	NIEHS
NIGMS	NIMH	NIMHD
NINDS	NINR	NLM
CC	CIT	CSR
FIC	NCATS	NCCIH



NIH ICs (continued)

- Not all ICs will accept all grant applications.
 - Most accept F-series - <https://researchtraining.nih.gov/institute>
- ICs can have specific guidelines, instructions, and peer review policies.



PA-23-272: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (**Parent F31**)

Funding Opportunity Title

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)

7/17/24, 10:31 AM

PA-23-272: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)

Department of Health and Human Services

Part 1. Overview Information

Participating Organization(s)

National Institutes of Health ([NIH \(http://www.nih.gov/\)](http://www.nih.gov/))

Components of Participating Organizations

National Eye Institute ([NEI \(https://www.nei.nih.gov/\)](https://www.nei.nih.gov/))

National Heart, Lung, and Blood Institute ([NHLBI \(https://www.nhlbi.nih.gov/\)](https://www.nhlbi.nih.gov/))

National Human Genome Research Institute ([NHGRI \(https://www.genome.gov/\)](https://www.genome.gov/))

National Institute on Aging ([NIA \(https://www.nia.nih.gov/\)](https://www.nia.nih.gov/))

Special Note: Not all NIH Institutes and Centers participate in Parent Announcements. Applicants should carefully note which ICs participate in this announcement and view their respective areas of research interest and requirements at the [Table of IC-Specific Information, Requirements, and Staff Contacts](#) website. ICs that do not participate in this announcement will not consider applications for funding. Consultation with NIH staff before submitting an application is strongly encouraged.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31) (PA-23-272)

PA-23-272

Table of IC-Specific Information, Requirements and Staff Contacts

Release Date: August XX, 2023

Expiration Date: September 8, 2025

NIH Institute or Center	Institute or Center Specific Information
<p><u>National Cancer Institute</u></p> <p>Scientific Program Contacts:</p> <p>Corinne Boulanger-Espeut, Ph.D., MBA Email: boulangc@mail.nih.gov</p> <p>Hana Odeh, Ph.D. Email: hana.odeh@nih.gov</p> <p>Anu Puri, Ph.D. Email: puria@mail.nih.gov</p> <p>Grants Management Contact: Nailah Agyemann Email: aggyemann@mail.nih.gov</p>	<p>NCI Specific Information:</p> <p>NCI requires a clear cancer focus in graduate research training and gives funding priority to applications whose sponsor and/or co-sponsor have active cancer-related R01, or R01-like, peer-reviewed research grants. For the NCI F31 Award, R01-like research funding includes peer-reviewed research grants from other federal sources and private foundations with a duration of at least 3 years with a minimum of \$150,000 direct costs per year. Grants under a no-cost extension do not qualify.</p> <p>Additional NCI-specific information/requirements can be found at: http://www.cancer.gov/researchandfunding/cancertraining/funding/f31</p>
<p><u>National Eye Institute</u></p> <p>Scientific Program Contact: Neeraj Agarwal, Ph.D.</p>	<p>NEI Specific Information:</p> <p>See: /training/index.htm</p>

NIH RePORTER

Quick Search

Search

Enter just about anything in the RePORTER Quick Search box above (text, PI names, project numbers, fiscal year, agency) or launch the Advanced Search to precisely configure searches using separate search fields.

Advanced Search

NIH RePORT RePORTER

FAQs API ExPORTER Sign In

Search Results1,840 Projects

Search Criteria Fiscal Year: Active Projects Activity Code: F31

Projects Publications Patents Clinical Studies News & More

List Charts Map

Filters

Fiscal Years

Org Names

Agencies

States

Countries

Principal Investigators

T	Act	Project	Year	Sub	Principal Investigator(s)/ Project Leader(s)	Organization	Fiscal Year	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
1		F31AI181460-01			ABBOTT, AMBER	UNIVERSITY OF PENNSYLVANIA	2024	NIAID	NIAID	\$48,974	View
5		F31DA057048-02			ABBOTT, MADELINE	UNIVERSITY OF MICHIGAN AT ANN ARBOR	2024	NIDA	NIDA	\$42,440	View
5		F31HL168946-02			ABDELAZIM, HANAA	VIRGINIA POLYTECHNIC INST AND ST UNIV	2024	NHLBI	NHLBI	\$43,531	View
1		F31GM154466-01			ABDUSAMAD, MAI	UNIVERSITY OF CALIFORNIA LOS ANGELES	2024	NIGMS	NIGMS	\$41,027	View



https://reporter.nih.gov/

[Back to Search Results](#)

[Description](#)

[Details](#)

[Sub-Projects](#)

[Publications](#)

[Patents](#)

[Outcomes](#)

[Clinical Studies](#)

[News and More](#)

[History](#)

[Similar Projects](#)

Adenoviral manipulation of arginine methylation

Project Number
1F31AI181460-01

Contact PI/Project
Leader
ABBOTT, AMBER

Awardee
Organization
UNIVERSITY OF PENNSYLVANIA

Details

Contact PI/ Project Leader

Name
ABBOTT, AMBER [View Email](#)

Title
PHD STUDENT

Contact

[View Email](#)

Other PIs

Not Applicable

Program Official

Name
LINDE, AMBER SHRYER

Contact

[View Email](#)

Organization

Name
UNIVERSITY OF PENNSYLVANIA

City
PHILADELPHIA

Country
UNITED STATES (US)

Department Type
BIostatISTICS & OTHER MATH SCI

Organization Type
SCHOOLS OF MEDICINE

State Code
PA
Congressional District
03

Other Information

Opportunity Number
[PA-21-051](#)

Study Section
[Special Emphasis Panel\[ZRG1 F07C-S \(20\)\]](#)

Fiscal Year
2024

Award Notice Date
04-April-2024

Administering Institutes or Centers
National Institute of Allergy and Infectious
Diseases

CFDA Code
855

DUNS Number
042250712

UEI
GM1XX56LEP58

Project Start Date
01-May-2024

Project End Date
30-April-2027

Budget Start Date
01-May-2024

Budget End Date
30-April-2025

NIH Staff

Program Officer

- Scientist & Administrator
- Identifies areas of scientific need
- Communicates NIH priorities to investigators and others
- Manages grants
- Communicates with IC Leadership about the science

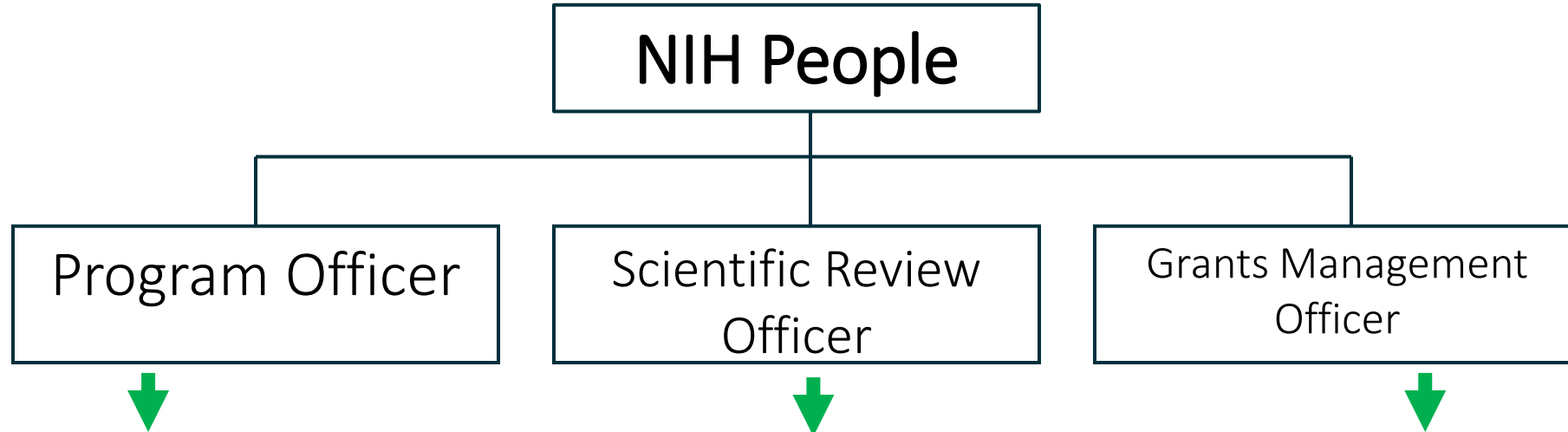
Scientific Review Officer

- Scientist & Administrator
- Manages grant reviews
- Appoints members to review groups & panels
- Prepares summary statements

Grants Management Officer

- Implements the funding process
- Oversees the budget
- Ensures grantee compliance with NIH policies & regulations

Who Should I talk to? When? And About What?



- **Before applying** discuss

- Concept paper aims & **fit** with NIH priorities
- Appropriate funding mechanism
- Responsiveness to review criteria
- After Review to discuss next steps

- **After application** is assigned to a review committee until review is complete to discuss:

- Review committee selection
- Missing info
- Supplemental info

- **Before or after review** to discuss:

- NIH grants policy
- Budget
- Change of institutions
- Grant start dates

Contacting NIH Staff

NIH staff is here to help. We strongly encourage NIH applicants and grantees to communicate with us throughout the grant life cycle. Understanding the roles of NIH staff can help you contact the right person at each phase of the application and award process.

Program Officials

Responsibilities

- Develop research and research training initiatives.
- Write notices of funding opportunities (NOFOs).
- Provide scientific guidance to investigators pre- and post-award.
- Monitor the programmatic, scientific, and/or technical aspects of a grant.
- Work in partnership with grants management staff on post-award administration, including review of progress reports.

When to Contact

- To help identify an appropriate type of grant program and/or funding opportunity for you and your research.
- To obtain input on whether your specific aims fit within the mission and priorities of an NIH institute or center.
- To discuss whether your research is considered a clinical trial.
- For approval to submit an application with a budget of \$500,000 or more in direct costs for any single year or an R13 conference grant.
- To discuss the outcome of review after receiving and reviewing your summary statement.
- To talk about progress or scientific and administrative issues that arise with the grant post-award.

Matchmaker

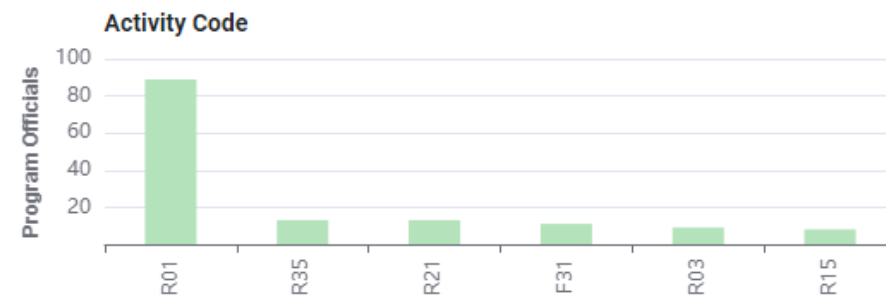
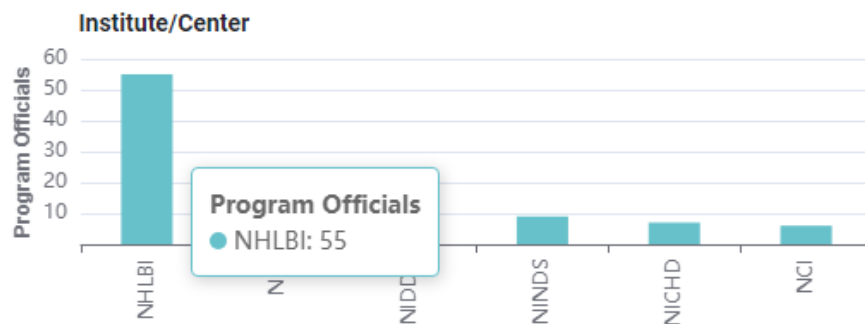
Enter abstracts or other scientific text to find potential Program Officials, ICs, and review panels for your research. ?

15,000 characters left

- ☒ Similar Projects
☐ Similar Program Officials

Reset

Search



Program Official	IC	Contact Information	Projects
CATANIA, SELEN MURATOGLU	NHLBI	View Email Contact info is hidden by default for privacy	42
SUTLIFF, ROY L	NHLBI		31

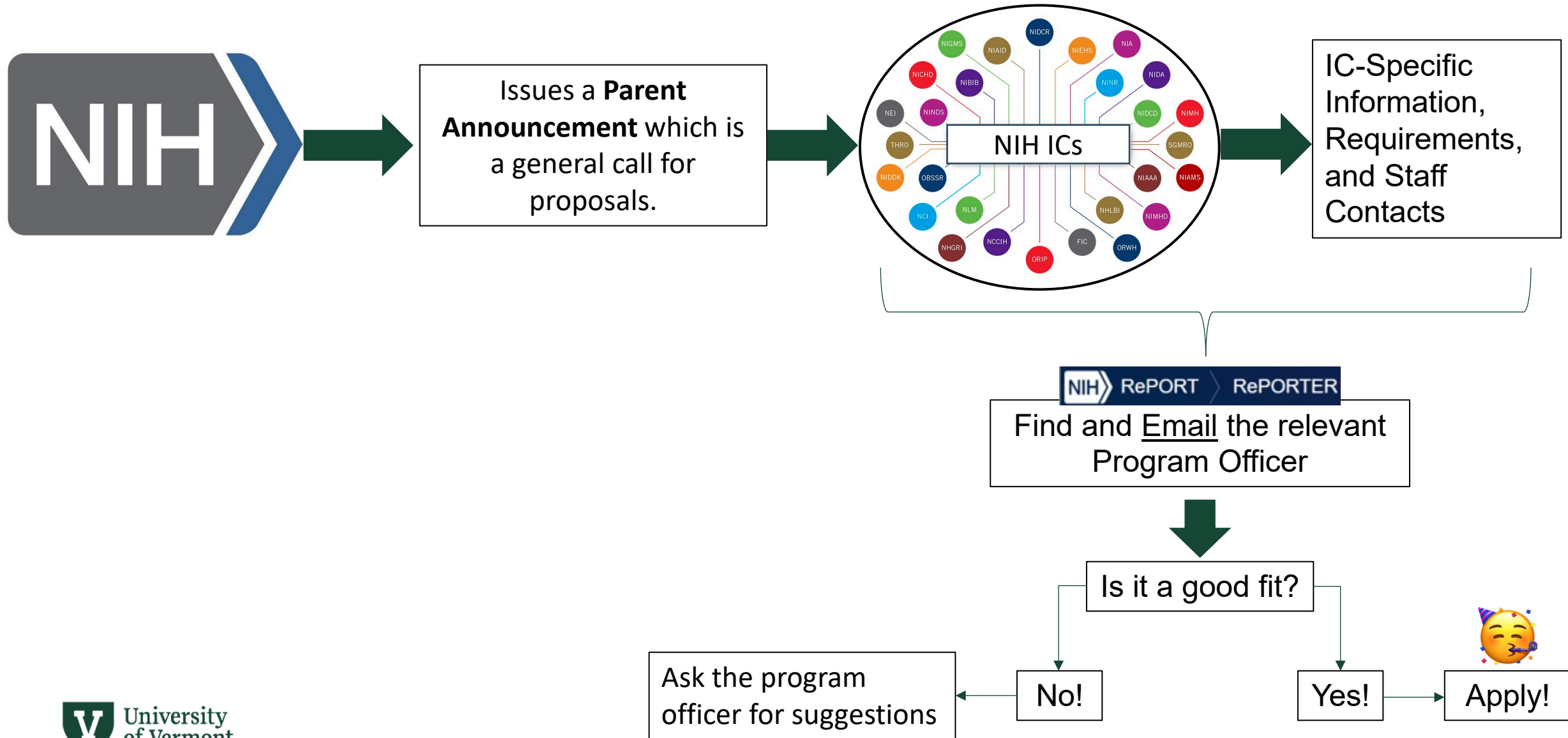
Identify the NIH Institute, staff contact in FOA

Email first: “I plan to submit an F31 fellowship, and I have a few questions. My draft aims/ idea/ mentor name are below. Could we schedule a **phone call** to discuss my application? Would you be available Tuesday at 1PM?].”



Sample discussion topics:

- Is this fellowship right for me?
- Are the research aims a good fit for your **Institute?**
- How much preliminary data is important for this application?
- How will the application be reviewed?
- What should I consider in describing my training goals?
- Do you have advice about preparing a strong application?



Questions?

Coming up: NIH F31/F32

NIH F31/32

1. Background and Eligibility
2. Application Components
3. Review Process

Summary of Individual Fellowship Award Programs

Activity Code	Program Description	NRSA?
F05	International Research Fellowships	No
F30	Individual Predoctoral National Research Service Award (NRSA) for M.D./Ph.D. and Other Dual Degree Fellowships	Yes
F31	Predoctoral Individual National Research Service Award	Yes
F32	Postdoctoral Individual National Research Service Award	Yes
F33	National Research Service Awards for Senior Fellows	Yes
F37	Medical Informatics Fellowships	No
F38	Applied Medical Informatics Fellowships	No
F99/K00	Individual Predoctoral to Postdoctoral Fellow Transition Award	No



Ruth L. Kirschstein Predoctoral Individual National Research Service Award

Program Purpose

The purpose of this Kirschstein-NRSA program is to enable promising predoctoral students with potential to develop into a productive, independent research scientists, to obtain mentored research training while conducting dissertation research. The F31 is also used to enhance workforce diversity though a separate program.

	PD/PI	Eligibility	Career level
		U.S. citizen or permanent resident, enrolled in a research doctoral degree program.	<u>Graduate/Clinical</u> <u>Doctorate</u>
	INSTITUTION	Eligibility	
		U.S. domestic institutions Foreign Institutions	

F31 Basic Eligibility

- Have a baccalaureate degree.
- Be enrolled in a PhD research program (not MD).
- Have a research project and sponsor (mentor).
- Demonstrate high academic performance in sciences and a commitment to a career as an independent researcher.
- Be a US citizen or have been lawfully admitted for permanent residence by time of award.



Postdoctoral Individual National Research Service Award (F32)

To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.

Purpose

The purpose of the Kirschstein-NRSA postdoctoral fellowship is to enhance the research training of promising postdoctoral candidates who have the potential to become productive, independent investigators in scientific health-related research fields relevant to the missions of the participating NIH Institutes and Centers.

Organization Eligibility

- **Eligibility:** U.S. domestic institutions , Foreign Institutions

Carefully read the Eligibility section of the funding opportunity for opportunity-specific organization eligibility requirements.

Project Director/ Principal Investigator (PD/PI) Eligibility

- **PD/PI U.S. Citizenship Requirement:** Yes
- **Career Stage:** Postdoctorate/Residency

U.S. citizen or permanent resident, with research or clinical doctoral degree.

Carefully read the Eligibility section of the funding opportunity for opportunity-specific PD/PI eligibility requirements.



Postdoctoral Individual National Research Service Award (F32)

Active Funding Opportunities

The NIH Guide for Grants and Contracts is NIH's official publication of notices of grant policies, guidelines, and funding opportunities.

[Search Now](#)

F32 Basic Eligibility

- U.S. citizen or permanent resident, with research or clinical doctoral degree (PhD, MD, DO, DC, DDS, DVM, OD, DPM, ScD, EngD, DrPH, DNSc, ND (Doctor of Naturopathy), PharmD, DSW, PsyD, or equivalent doctoral degree from an accredited domestic or foreign institution).
- Be Postdoctorate/Residency
- Have a research project and sponsor (mentor).



Read the Call (then read it again)

Table of Contents

Part 1. Overview Information

Key Dates

Part 2. Full Text of Announcement

Section I. Funding Opportunity Description

Section II. Award Information

Other Award Budget Information

Section III. Eligibility Information

Section IV. Application and Submission Information

Section V. Application Review Information

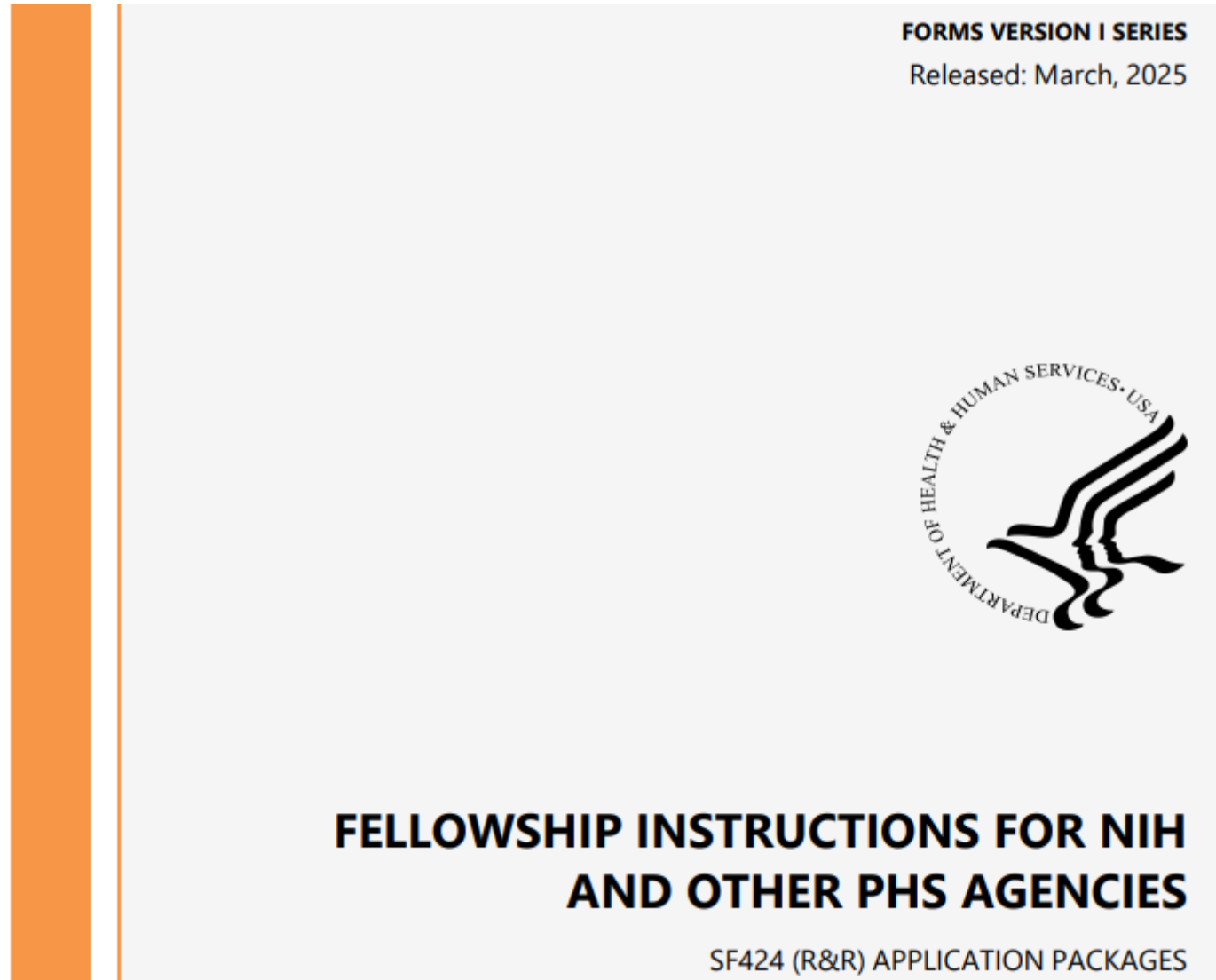
Section VI. Award Administration Information

Section VII. Agency Contacts

Section VIII. Other Information

The purpose of the Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31) is to enable promising predoctoral students to obtain individualized, mentored research training from experienced faculty sponsors while conducting dissertation research. Candidates for this F31 program are expected to propose a dissertation research project and training plan in scientific health-related fields relevant to the mission of the participating Institutes and Centers. This training plan should reflect the applicant's dissertation research project and facilitate and clearly enhance the individual's potential to develop into a productive, independent research scientist. The training plan should document the need for, and the anticipated value of, the proposed mentored research and training in relationship to the individual's research career goals. The training plan should also facilitate the fellow's transition to the next stage of their research career.

Every detail you need to prepare your proposal



132 Page Monster!

For due dates before Jan. 25, 2025

Introduction

1. Introduction to Application (for Resubmission Applications)

Fellowship Applicant Section

2. Applicant's Background and Goals for Fellowship Training

Research Training Plan

2. Specific Aims
3. Research Strategy
4. Respective Contributions†
5. Selection of Sponsor and Institution†
6. Progress Report Publication List (for Renewal Applications)
7. Training in Responsible Conduct of Research

Sponsor(s), Collaborator(s), and Consultant(s) Section

8. Sponsor and Co-Sponsor Statements
9. Letters of Support from Collaborators, Contributors, and Consultants
10. Description of Institutional Environment, and Commitment to training†
11. Description of Candidate's contributions to Program Goals

For due dates on or after Jan. 25, 2025

Introduction

1. Introduction to Application (for Resubmission Applications)

Candidate Section

2. Candidate's Goals, Preparedness, and Potential*

Research Training Plan

3. Training Activities and Timelines*
4. Research Training Project Specific Aims*
5. Research Training Project Strategy*
6. Progress Report Publication List (for Renewal Applications)
7. Training in the Responsible Conduct of Research

Commitment to Candidate, Mentoring, and Training Environment

8. Sponsor(s) Commitment
9. Letters of Support from Collaborators, Contributors, and Consultants
10. Descriptions of Candidate's Contribution to Program Goals (no longer required)

* Section added or revised

† Information moved elsewhere in application

New Fellowship Application Categories

Candidate's Goals, Preparedness and Potential

- Overall Training Goals
- Candidate's Preparedness
- Candidate's Self-Assessment
- Scientific Perspective

Research Training Plan

- Training Activities and Timeline
- Research Training Project Specific Aims
- Research Training Project Strategy
 - Scientific Foundation and Rationale
 - Approach

Sponsor(s) Commitment

- Mentoring Approach and Candidate Mentoring Plan
- Prior Training and Mentoring
- Commitment to the Candidate's Research Training Plan
- Research Training Environment
- Candidate's potential

Introduction	
1. Introduction to Application (for Resubmission Applications)	<input type="text"/>
Candidate Section	
2. *Goals, Preparedness, and Potential	<input type="text"/>
Research Training Plan	
3. *Training Activities and Timeline	<input type="text"/>
4. *Research Training Project Specific Aims	<input type="text"/>
5. *Research Training Project Strategy	<input type="text"/>
6. *Progress Report Publication List (for Renewal Applications)	<input type="text"/>
7. *Training in the Responsible Conduct of Research	<input type="text"/>
Commitment to Candidate, Mentoring, and Training Environment	
8. *Sponsor(s) Commitment	<input type="text"/>
9. Letters of Support from Collaborators, Contributors, and Consultants	<input type="text"/>
10. Description of Candidate's Contribution to Program Goals	<input type="text"/>

F.430 - PHS Fellowship Supplemental Form

The PHS Fellowship Supplemental Form is used only for fellowship applications.

This form includes fields to upload several attachments including the Specific Aims, Research Strategy, and Applicant Background and Goals.

The attachments in this form, together with the rest of your application, should include sufficient information needed for evaluation of the project and fellow, independent of any other documents (e.g., previous application). Be specific and informative, and avoid redundancies.



 [View larger image](#)

Quick Links

[Introduction](#)

- [1. Introduction to Application \(for Resubmission applications\)](#)

[Candidate Section](#)

- [2. Candidate's Goals, Preparedness and Potential](#)

[Research Training Plan](#)

- [3. Training, Activities and Timeline](#)
- [4. Research Training Project Specific Aims](#)
- [5. Research Training Project Strategy](#)
- [6. Progress Report Publication List \(for Renewal applications\)](#)
- [7. Training in the Responsible Conduct of Research](#)

[Commitment to Candidate, Mentoring and Training Environment](#)

- [8. Sponsor\(s\) Commitment](#)
- [9. Letters of Support from Collaborators, Contributors, and Consultants](#)
- [10. Description of Candidate's Contribution to Program Goals](#)

[Other Research Training Plan Section](#)

[Vertebrate Animals](#)

- [11. Are vertebrate animals euthanized?](#)
- [12. Vertebrate Animals](#)

F.120 - Significant Changes

The Application Instructions are updated and released 2-3 times per year as needed. Additionally, minor revisions may be made outside of these releases.

This section details all significant changes and revisions made to the instructions since the last major release.



Within the instructions, new instructions will be marked with this symbol.

For all Fellowship (F) Applications

Including F05, F30, F31, F32, F33, F37, F38, F99/K00

If no page limit is listed in the table below, in Section IV of the NOFO under Page Limitations, or in a related notice, you can assume the attachment does not have a limit.

Section of Application	Page Limits* (Unless the funding opportunity specifies a different limit)
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 (FORMS-H)	6
Candidate's Goals, Preparedness, and Potential (FORMS-I and later)	3
Training Activities and Timelines (FORMS-I and later)	3
Specific Aims (FORMS-H)	1
Research Training Project Specific Aims (FORMS-I and later)	1
Research Strategy (FORMS H)	6
Research Training Project Strategy (FORMS-I and later)	6



[https://grants.nih.gov/grants-process/write-application/how-to-apply-application-guide/page-limits#for-all-fellowship-\(f\)-applications](https://grants.nih.gov/grants-process/write-application/how-to-apply-application-guide/page-limits#for-all-fellowship-(f)-applications)

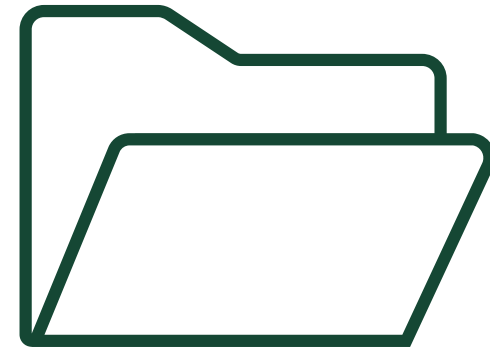
(Continues next slide)



Respective Contributions (FORMS-H)	1
Selection of Sponsor and Institution (FORMS-H)	1
Training in the Responsible Conduct of Research	1
Sponsor and Co-Sponsor Statements (FORMS-H)	6
Sponsor(s) Commitment (FORMS-I)	6
Letters of Support from Collaborators, Contributors, and Consultants	6
Description of Institutional Environment and Commitment to Training (FORMS-H) Note: This page limit includes the Additional Educational Information required for F30 and F31 applications.	2
Applications for Concurrent Support (when applicable)	1
Biographical Sketch	5

Other Documents

- Bibliography and References Cited
- Facilities & Other Resources
- Equipment
- Vertebrate animals
- Human Subjects
- Select Agent Research
- Resource Sharing Plan
- Authentication of Key Biological and/or Chemical Resources



Stay Organized!
Avoid Version-itis!

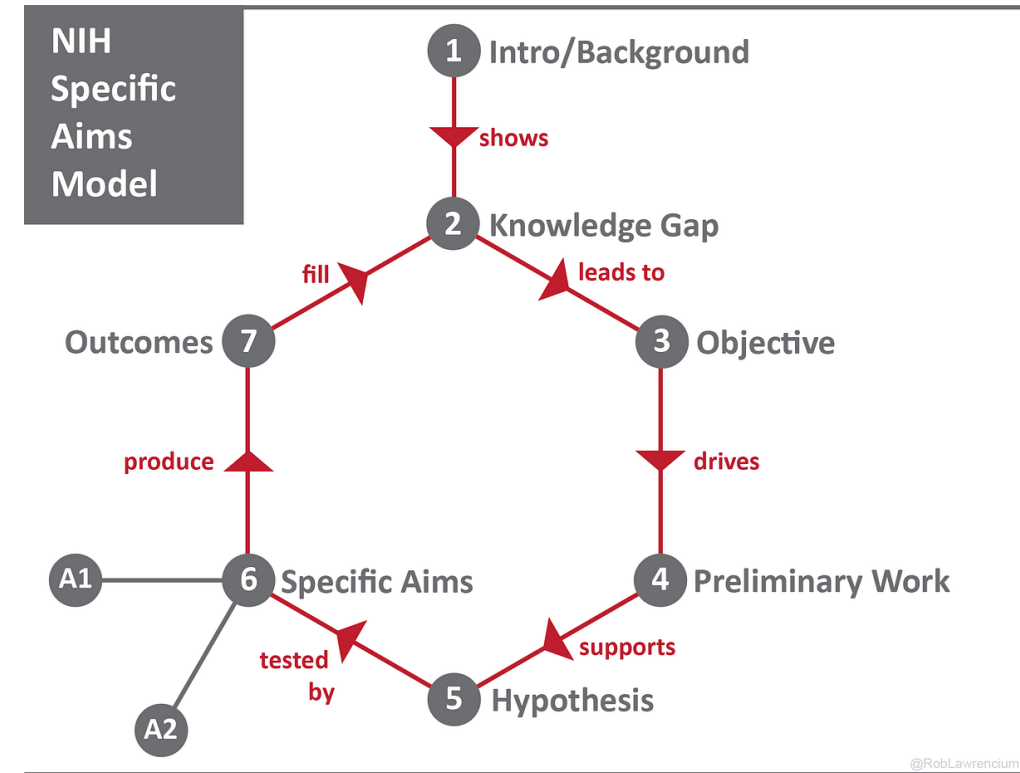
Candidate's Goals, Potential and Preparedness (3 pages)

1. Overall Training Goals
 - Describe the goals for the proposed research training plan and the long-term goals for a career in biomedical research workforce.
2. Candidate's Preparedness
 - Provide information regarding the educational, scientific, and professional experiences that prepare the candidate for the proposed research training plan.
3. Candidate's Self Assessment
 - Define current characteristics (such as relevant skills, abilities, traits or attitudes) and areas to develop that are likely to contribute most significantly to success in the proposed research training plan and career path
4. Scientific Perspective
 - Provide information about the candidate's potential to think about and express ideas within a scientific field.

This is just a broad overview! Much more detailed instructions provided by NIH.

Research Training Project Specific Aims Page

- State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will have on the research field(s) involved.
- e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.
- Limited to one page – **typically the first thing reviewers read and everyone reads it!**
 - Catch their attention!



<https://medium.com/metascientific/a-model-for-drafting-specific-aims-1a4caf0bd246>

Research Training Project Strategy

This is the “grant proposal” – 6 pages explaining your research question, how will you answer it, and **why it matters?**

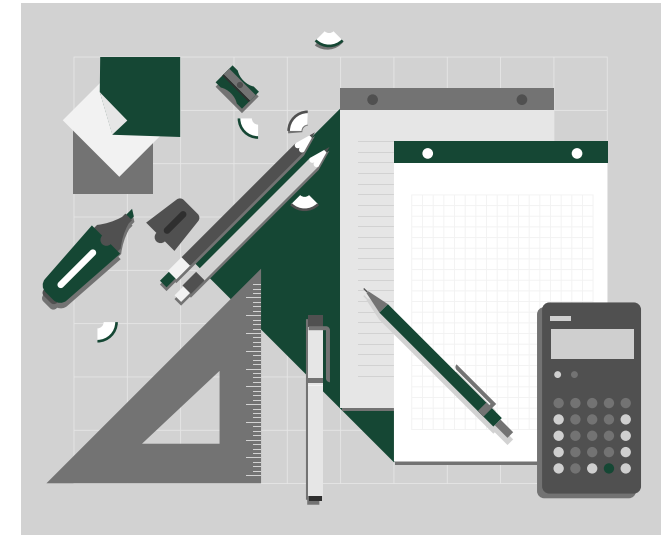
1. Scientific Foundation and Rationale

1. Provide the context for the proposed research training project.
2. Describe the rationale for the research training project, including unaddressed areas for research and why this area of research is interesting and important.
3. Describe how achieving the proposed research training project goals will advance biomedical research in the candidate’s chosen field.

2. Approach

1. Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project.

If relevant, include **preliminary studies (not required)**.



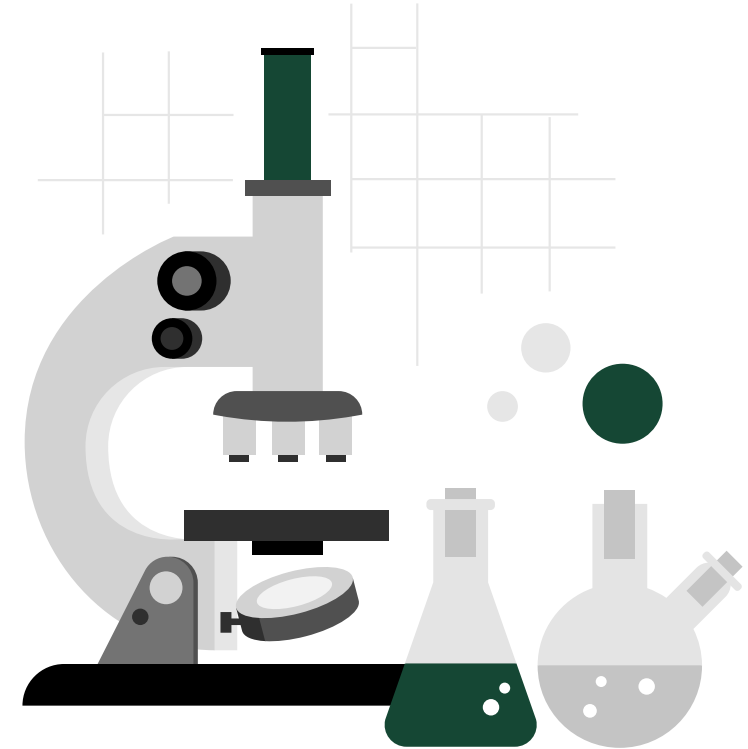
Sponsor(s) Commitment

- **Be in conversation with your sponsor(s).**
- Include the following sections:
 1. Mentoring Approach and Candidate Mentoring Plan
 2. Prior Commitment to Training and Mentoring
 3. Commitment to Candidate's Research Training Plan
 4. Research Training Environment
 5. Candidate's Potential



Sponsor(s)

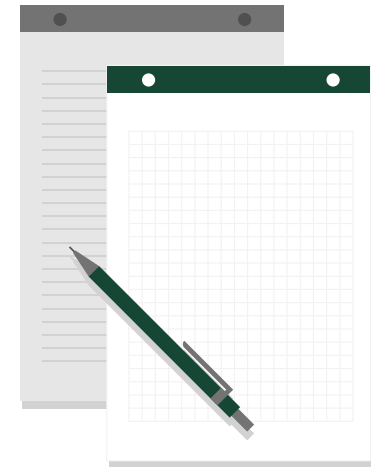
- Sponsor = Mentor
- Can (and potentially should) have more than 1.
- **Goal:** “supervise the proposed mentored training experience”
- **Qualifications:** “an active investigator in the area of the proposed research training and be committed both to the candidate’s research training and to direct supervision of their research.
- Examples – PhD Advisor, PhD Committee Members, Lab Supervisors, etc.



Qualities of a Good Mentor

- Well known and well respected in your selected field
- Open-minded, supportive, motivating, and a good listener.
- Communicate clearly, give you appropriate projects to pursue, teach you to analyze and interpret results.
- Foster collaboration.
- Ensure you're making progress towards goals.
- Give you feedback on your scientific work in a constructive and timely manner.
- Support your participation in career-building activities, e.g., retreats, grant writing.
- Encourage you to be independent.
- Introduce you to researchers in your field at meetings or conferences.
- Acknowledge your contribution to the research.
- Help you with grant applications and review them before you submit.

Keep in mind that a PI doesn't have to meet all the criteria above to be a good mentor.



Letters of Support

- Not your Sponsor(s)
- “If any collaborators, consultants, or advisors are expected to contribute to the scientific development or execution of the fellow’s planned project and research training, attach letters of support from those individuals, describing their anticipated role and contributions.”
- **Be in conversation with your letter writers!**
 - Some might expect you to write this (or some parts of it), and they edit. Some might write it themselves.
- Should be **personal and tailored** to the specific project!
 - Not a generic/boilerplate letter.
- 6 pages total



Due Dates

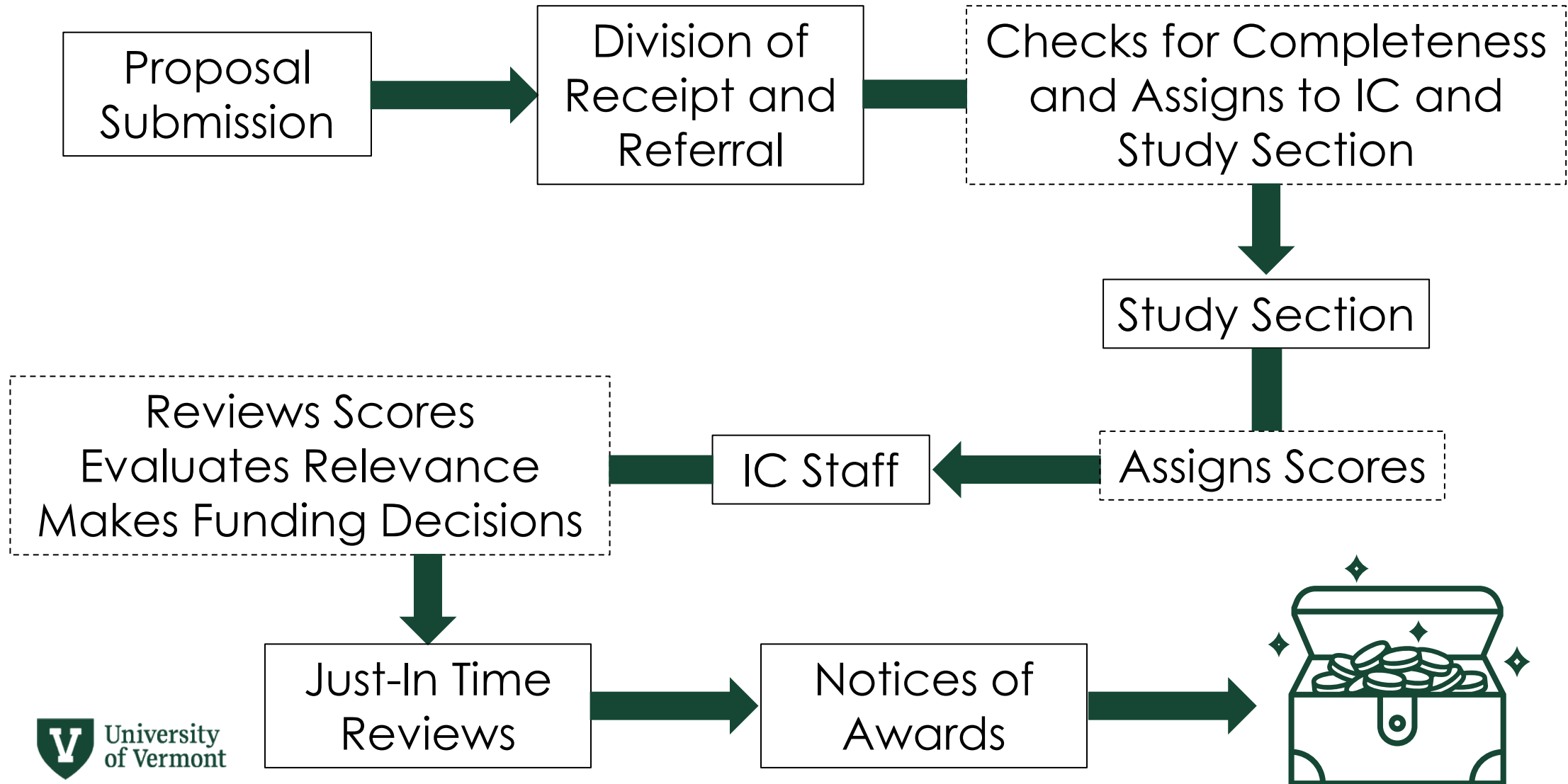
Due Dates

The Key Dates section of funding opportunities lists specific due dates. Many opportunities indicate [Standard Due Dates](#) apply.

Standard Application Due Dates (when applicable)			Review and Award Cycles		
New	Renewal, Resubmission, Revision as Allowed	AIDS and AIDS Related Grant Applications	Scientific Merit Review	Advisory Council Review	Earliest Start Date
April 8	April 8	May 7	June - July	August or October	September or December
August 8	August 8	September 7	October - November	January	April
December 8	December 8	January 7	February - March	May	July

All applications are due by 5:00 PM local time of applicant organization.

Peer-Review Process



Recent Review Criteria Change

Five Regulatory Criteria Reorganized into Three Review Criteria

The revised fellowship peer review criteria reorganize the five current scored review criteria headings into three, each scored 1-9:

For due dates before Jan. 25, 2025

Introduction

1. Fellowship Applicant
2. Sponsors, Collaborators, and Consultants
3. Research Training Plan
4. Training Potential
5. Institutional environment and Commitment to Training.

For due dates on or after Jan. 25, 2025

Introduction

1. Candidate's Preparedness and Potential
2. Research Training Plan
3. Commitment to Candidate

<https://grants.nih.gov/policy/peer/revisions-nih-fellowship-application-review-process/changes-to-fellowship-review-criteria.htm>

Scored Review Criteria

Criteria	Details
Candidate's Preparedness and Potential	<ul style="list-style-type: none">• Discuss the candidate's preparedness for the proposed research training plan. Consider the context, for example, the candidate's stage of training and the opportunities available.• Assess whether the candidate and sponsor statements as well as the referee letters provide convincing evidence that the candidate possesses qualities (such as scientific understanding, creativity, curiosity, resourcefulness, and drive) that will improve the likelihood of a successful research training outcome.• Consider the candidate's potential to benefit from the fellowship research training plan and to transition to the next career stage in the biomedical research workforce.
Research Training Plan	<ul style="list-style-type: none">• Assess the rigor and feasibility of the research training project and how completion of the project will contribute to the development of the candidate as a research scientist.• Evaluate the goals of the overall research training plan and the extent to which the plan will facilitate the attainment of the goals.• Discuss whether the research training plan identifies areas of needed development and contains appropriate, realistic activities and milestones to address those needs.• Consider whether the sponsor(s), scientific environment, facilities, and resources are adequate and appropriate for the proposed research training plan.
Commitment to Candidate	<ul style="list-style-type: none">• Assess whether the sponsor(s) presents a strong mentoring plan appropriate to the needs and goals of the candidate.• Evaluate the extent to which the sponsor(s) and organizational commitment is appropriate, sufficient, and in alignment with the candidate's research training plan.• Consider whether the level of commitment provided will contribute to the successful completion of the proposed plan and allow the candidate to advance to a productive career in the biomedical research workforce.

Scored Components

1. Candidate's Preparedness and Potential
2. Research and Training Plan
3. Commitment to Candidate

Overall Impact Score*

Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the fellowship will enhance the candidate's potential for, and commitment to, a productive independent scientific research career in a health-related field, in consideration of the scored and additional review criteria.

Scoring

1. Candidate's Preparedness and Potential
2. Research and Training Plan
3. Commitment to Candidate

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

2022-2023 NIH Grants Conference & PreCon Events Season: Session Recordings & Resources

NIH Peer Review: “Live” Mock Study Section with Extended Q&A

Video (YouTube)



Fiscal Year	Activity Code	Institute / Center	# Reviewed	# Awarded	Success Rate	Total Funding
2024	F31	NCCIH	18	10	55.6%	\$421,265
2024	F31	NCI	636	89	14.0%	\$3,895,833
2024	F31	NEI	91	32	35.2%	\$1,430,458
2024	F31	NHGRI	34	8	23.5%	\$365,319
2024	F31	NHLBI	300	120	40.0%	\$5,206,425
2024	F31	NIA	272	63	23.2%	\$2,791,228
2024	F31	NIAAA	79	39	49.4%	\$1,716,853
2024	F31	NIAID	505	145	28.7%	\$6,301,192
2024	F31	NIAMS	102	21	20.6%	\$911,417
2024	F31	NIBIB	8	1	12.5%	\$48,974
2024	F31	NICHD	231	68	29.4%	\$2,955,183
2024	F31	NIDA	104	40	38.5%	\$1,799,807
2024	F31	NIDCD	98	50	51.0%	\$2,166,713
2024	F31	NIDCR	45	28	62.2%	\$1,264,356
2024	F31	NIDDK	243	65	26.7%	\$2,817,592
2024	F31	NIEHS	79	16	20.3%	\$696,438
2024	F31	NIGMS	140	48	34.3%	\$2,150,940
2024	F31	NIMH	275	73	26.5%	\$3,289,767
2024	F31	NIMHD	28	11	39.3%	\$487,186
2024	F31	NINDS	470	108	23.0%	\$4,703,141
2024	F31	NINR	30	21	70.0%	\$962,794
2024	F31	NLM	6	1	16.7%	\$48,974
2024	F31	OD ORIP	1	0	0.0%	\$0
2024	F31	ACTIVITY TOTAL	3,795	1,057	27.9%	\$46,431,855

Fiscal Year	Activity Code	Institute / Center	# Reviewed	# Awarded	Success Rate	Total Funding
2024	F32	NCCIH	2	0	0.0%	\$0
2024	F32	NCI	112	21	18.8%	\$1,596,434
2024	F32	NEI	30	11	36.7%	\$822,752
2024	F32	NHGRI	6	2	33.3%	\$156,238
2024	F32	NHLBI	135	56	41.5%	\$4,529,654
2024	F32	NIA	72	19	26.4%	\$1,455,547
2024	F32	NIAAA	16	11	68.8%	\$828,332
2024	F32	NIAID	113	50	44.2%	\$3,792,373
2024	F32	NIAMS	25	7	28.0%	\$526,716
2024	F32	NIBIB	3	0	0.0%	\$0
2024	F32	NICHD	79	29	36.7%	\$2,201,353
2024	F32	NIDA	30	17	56.7%	\$1,292,036
2024	F32	NIDCD	29	12	41.4%	\$918,455
2024	F32	NIDCR	5	2	40.0%	\$151,936
2024	F32	NIDDK	100	23	23.0%	\$1,829,415
2024	F32	NIEHS	11	3	27.3%	\$234,572
2024	F32	NIGMS	172	47	27.3%	\$3,504,260
2024	F32	NIMH	65	16	24.6%	\$1,225,137
2024	F32	NIMHD	4	2	50.0%	\$164,760
2024	F32	NINDS	70	28	40.0%	\$2,135,384
2024	F32	NINR	2	0	0.0%	\$0
2024	F32	ACTIVITY TOTAL	1,081	356	32.9%	\$27,365,354

What's the Funding For?

The Kirschstein-NRSA Individual **Predoctoral Fellowship (F31)** program may provide **up to five years (typically 2-3 years)** and the **Postdoc Fellowship (F32)** program may provide **up to three years**.

- **Stipends**
 - a subsistence allowance to help defray living expenses during the research and clinical training experiences. See <https://researchtraining.nih.gov/resources/policy-notice>
- **Tuition and Fee**
 - contribute to the combined cost of tuition and fees at the rate in place at the time of award. See <https://researchtraining.nih.gov/resources/policy-notice>.
- **Institutional Allowance**
 - to help defray the cost of fellowship expenses such as health insurance, research supplies, equipment, books, and travel to scientific meetings.
See <https://researchtraining.nih.gov/resources/policy-notice>.

At the time of award, individuals **are required to pursue their research training** on a full-time basis, normally defined as **40 hours per week** or as specified by the sponsoring institution in accordance with its own policies.

Questions?

Coming up: General Strategies and Tips for Grant Writing

General Strategies for Grant Writing

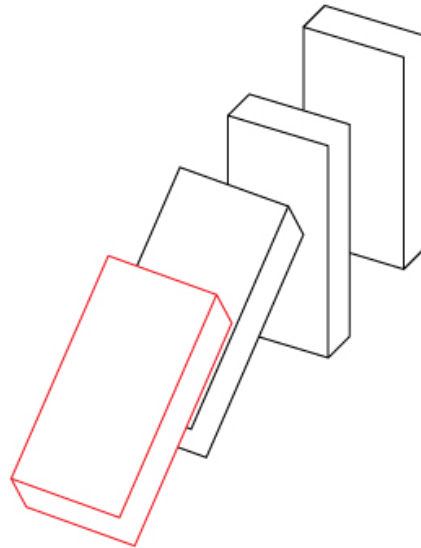
General Strategies for Success

- Give yourself plenty of **Time**.
- Find **sponsor(s)/mentor(s)** that you trust.
- Read the call:
 - In full detail and multiple times.
 - Paying special attention to what they want to fund.
- Contact **Program Officers**.
- Read successful/unsuccessful examples.
- Have multiple people review your proposal.



Avoid the Domino Effect!

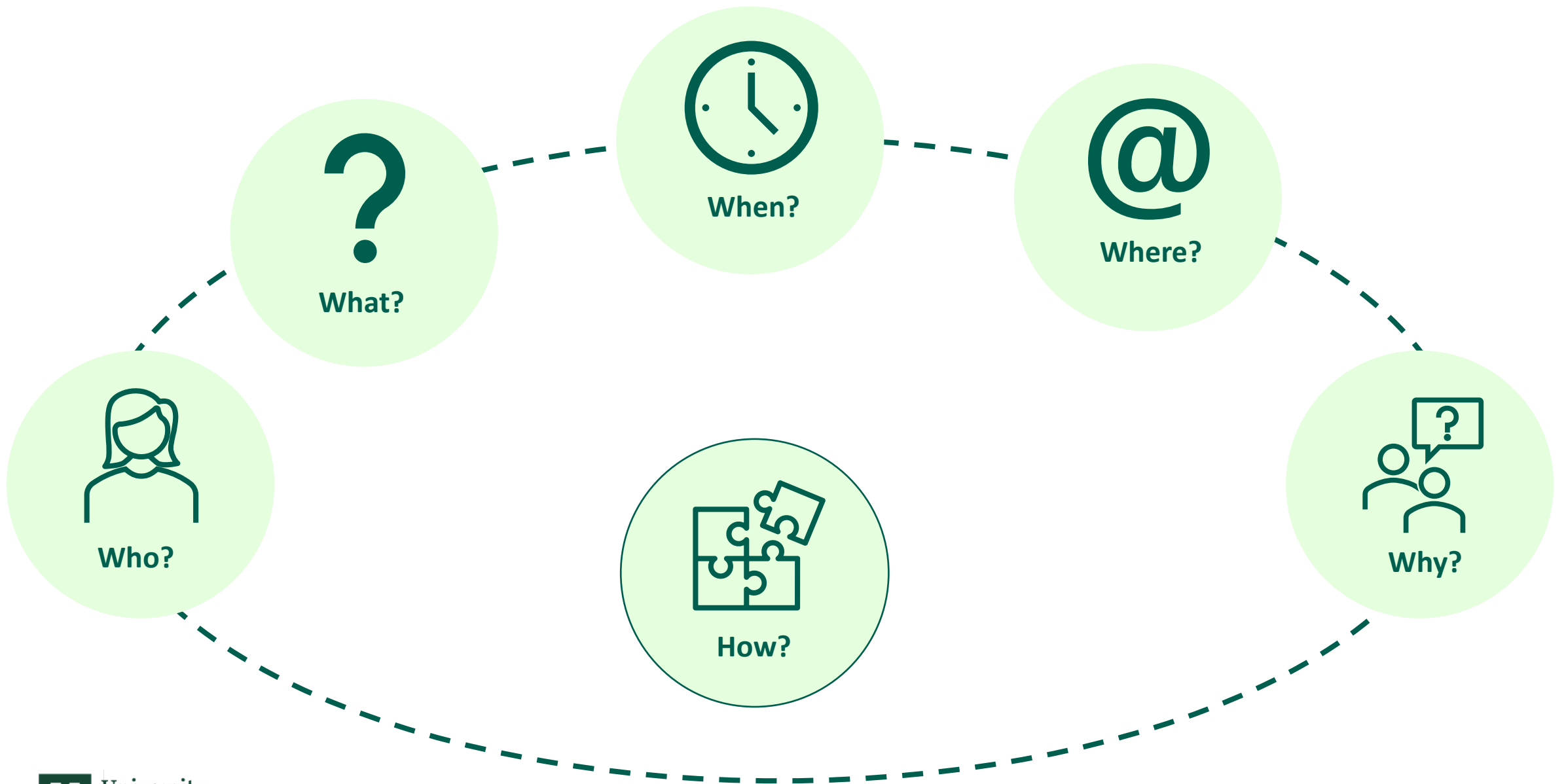
- Specific Aims should be **independent** and **interdependent**, **not dependent**
 - Cohesive/focused but not wholly reliant on each other.
 - Ex: If Aim 1 yields an unexpected/unanticipated result, Aim 2 should still fully function.



Writing a Proposal is NOT like Writing a Publication

A Paper is: NON-FICTION	A Proposal is: FICTION
A scholarly pursuit – individual passion	Aimed at funder goals – service attitude
Past oriented, work that has been done	Future oriented, work that <i>should</i> be done
Theme centered; theory and thesis	Project centered; objectives and activities
Expository rhetoric: explaining to the reader	Persuasive rhetoric: “selling” to the reader
Impersonal tone, objective, dispassionate	Personal tone, conveys excitement
Fewer length constraints (sometimes)	Strict length constraints, brevity rewarded
Specialized terminology, “insider jargon”	Accessible language, easily understood

Not an opportunity to flex your jargon!



The Proposal in Brief

- Pitch your idea well – give reviewers everything they need to know by answering key content-structuring questions...
 - *What* are you going to do?
 - *Why* is that significant or important work?
 - *How* are you going to do it?
 - *Who* is going to do what?
 - *When* are the steps to be performed?
 - *Where* will this lead?

SuRE
Resource
Center

But What Do I Do?

- Mentors!
 - Many of your mentors will have NIH experience.
- Fellow grad students, lab mates, etc.
- Look at examples!



National Institutes of Health (US) - F31

- The role of *wcjE* disruption in pneumococcal serotype 11A humoral escape Juan Calix, 2010, *funded*
- Characterization of Antibody-Dependent Cellular Cytotoxicity in HIV Infection Adjoa R. Smalls-Mantey, 2011, *funded*

<https://www.ogrants.org/>

PI and Recipient Institution	Application Resources
Nicole Putnam, Ph.D., of Vanderbilt University "The impact of innate immune recognition of Staphylococcus aureus on bone homeostasis and skeletal immunity"	Full Application PDF Summary Statement PDF
Nico Contreras, Ph.D., of University of Arizona "The Immunological Consequences of Mouse Cytomegalovirus on Adipose Tissue"	Full Application PDF Summary Statement PDF
Samantha Lynne Schwartz, Ph.D., of Emory University "Regulation of 2'-5'-oligoadenylate synthetase 1 (OAS1) by dsRNA"	Full Application PDF Summary Statement PDF

So What?!

- Why is this project important?
- Why do you want to accomplish these Aims?
- Why now?
- Why should the NIH care?
- How will this contribute to health/health research?
- What is the significance?



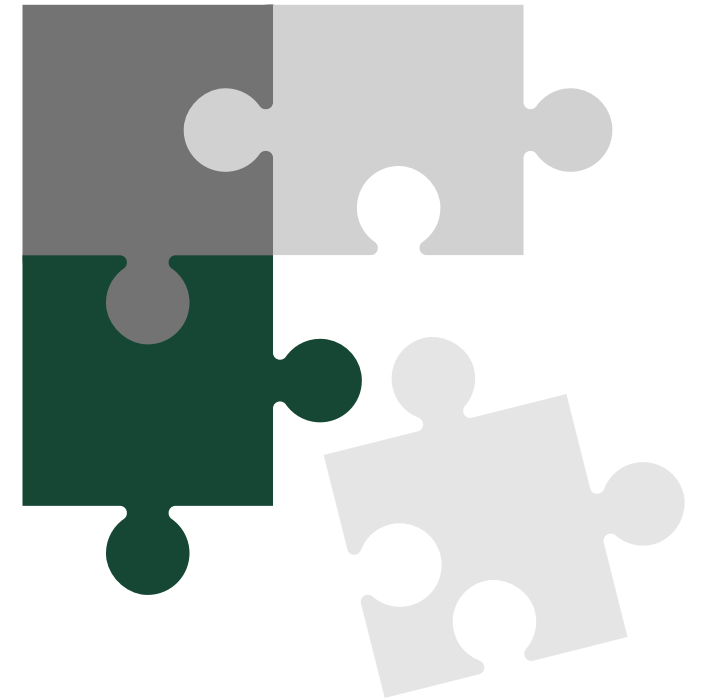
So What for NIH?

- Does the project address an important problem or a critical barrier to progress in the field?
- If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- Is there a strong scientific premise for the project?



Specific F31/F32 Suggestions

- Start early!
- Meet with your sponsor(s) early and often!
- Sell yourself!
- Make it realistic!
- Reach out for letters of support EARLY!
 - Include your specific aims page or other summary of the project.
- Is this the right time to apply?
 - “Applications do best at review if the candidate **has performed research in a lab for at least a year or two.**”
 - Do you have the time and energy?



Tips from NIH

Additional Application Tips

Here are some general tips to help you prepare a strong application.

Talk About Yourself

To convince reviewers that you deserve a fellowship award, write clearly about your experience and qualifications.

In the Personal Statement section of your biosketch, describe your level of research experience, passion for research, strengths, and weaknesses. Show how you plan to bolster those weaknesses, such as taking courses or engaging in other activities, like submitting papers or giving scientific presentations at local or national conferences. You may also want to point out that you maintain a level of interest in your field through other related training and work experience.

Also highlight any publications you have (especially if you're applying for an F31), since reviewers will be on the lookout. Perhaps most importantly, tell them what you hope to gain from a fellowship, i.e., what added value it would give your career, as opposed to conducting research under your mentor's grant.

Read What Others Write

Your sponsor and co-sponsor (if any) will have to complete part of your application. Be sure to read what they write about the Research Plan, your qualifications and career goals, so the information that both you and they provide works well together. You certainly don't want reviewers to find discrepancies.

You may also want to read letters from collaborators and the letter of commitment your institution provides.

Organize, Organize, Organize

Make it easy on your reviewers to read through your application by writing a well-organized one. Use headers, charts, graphs, and other elements that will make your application appealing and user friendly.

Don't Take Negative Reviews Personally!

Distinguishing between **excellent science/ scholarship** and *slightly less excellent science/ scholarship* is exceedingly difficult



UVM Graduate Writing Center

- UVM's Graduate Writing Center supports graduate student writing and communication in all fields, at all stages, and in all forms including articles, proposals, posters, and more.
- A place where we believe that no one is a “bad writer” and that all writers can benefit from peer-to-peer support.
- A space where you can talk about your work with a peer trained to support your writing.
- Located on the ground floor of Howe Memorial Library (Room 030).
- Funded by the Graduate College.
- **Free** to All UVM Graduate Students and Post-doctoral Fellows.
- <https://www.uvm.edu/writingcenters/graduatewriting>



Upcoming Sessions!

- **Session 5:** Wednesday, September 24, 2024, 5-6 PM, ONLINE
 - Preparing a Competitive Application for the USDA AFRI Education and Workforce Development (EWD) Predoctoral Fellowship
- **Session 6:** Wednesday, October 2, 2024, 5-6 PM, IN-PERSON
 - Peer review and pizza



Questions?

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