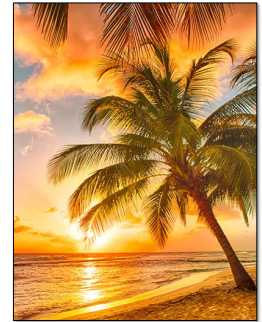


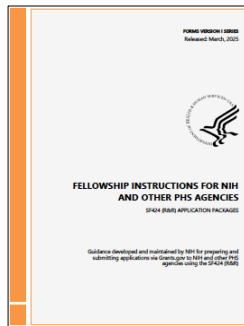
Step 1 Start the Application

**An Idea
 A Mentor
 An Institution**

Step 2 Start with the right attitude



Step 3 Find information & make connections



F05	International Research Fellowships To provide collaborative research opportunities for qualified foreign scientists who hold a doctoral degree or its equivalent in the biomedical or behavioral sciences. Details New Current Funding Opportunities
F30	Ruth L. Kirschstein Individual Predoctoral NSA for MD/PhD and other Dual Degree Fellowships Individual fellowships for predoctoral training which leads to the combined MD/PhD and other dual Degree Research Degrees. Details New Current Funding Opportunities
F31	Ruth L. Kirschstein Predoctoral Individual National Research Service Award To provide predoctoral individuals with supervised research training in specified health and health-related areas leading toward the research doctoral degree (e.g., PhD). Details New Current Funding Opportunities
F32	Ruth L. Kirschstein Predoctoral Individual National Research Service Award To provide predoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas. Details New Current Funding Opportunities
F33	Ruth L. Kirschstein National Research Service Awards for Senior Fellows To provide opportunities for experienced scientists to make major changes in the direction of research careers or to acquire new research capabilities to engage in health-related research. Details New Current Funding Opportunities

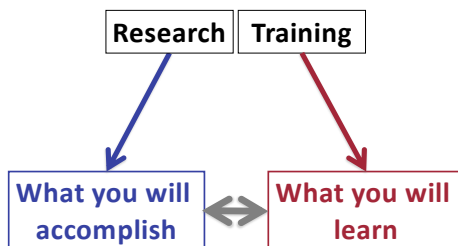
Step 4 Define the specific aims

What you expect to accomplish:
 — should be a test of your hypothesis

At this point get a reality check:

- consult colleagues/mentors:
- is the question important?
 - is the approach logical?
 - are the experiments feasible?

Step 5 Define the Research Training Goals



Step 6 Plan the proposal

An application has multiple parts
 — make a plan to complete all

Complete the Front Pages



Work with your Grants Office

Write the Proposal



Draft with input from mentors & colleagues

Manage Colleagues



Contact References Collaborators

Allow enough time to prepare!

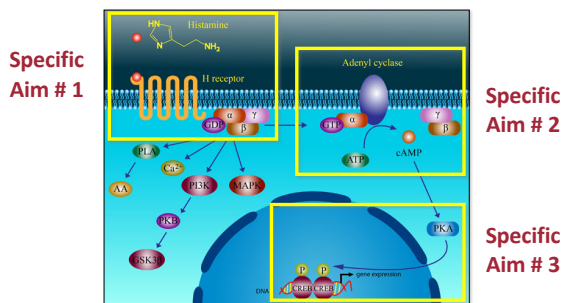
Step 7 Contact references & collaborators



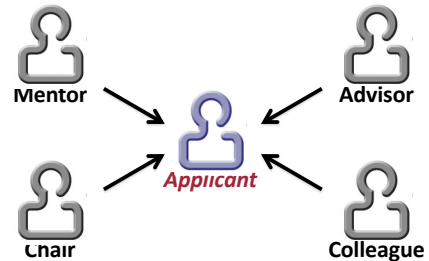
Step 8 Draft the proposal



Step 9 Build a model



Step 10 Get feedback



Ask someone who is not in your field to read your proposal!

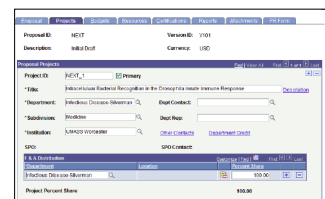
Step 11 Manage your mentors & colleagues

	Checklist
X	Mentor's Statement
X	Reference Letters
X	Feedback on draft

Step 12 Comply with the regulations

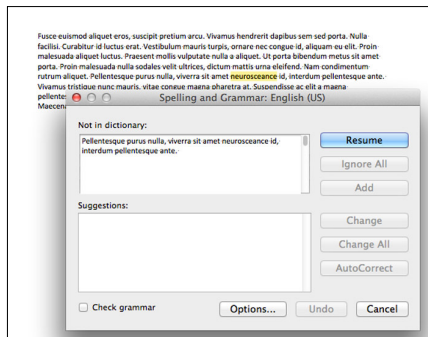
Assurances/Certifications

- Human Subjects
- Animal Welfare
-
-
-



Respect the work of your Office of Research and submit materials in good time!

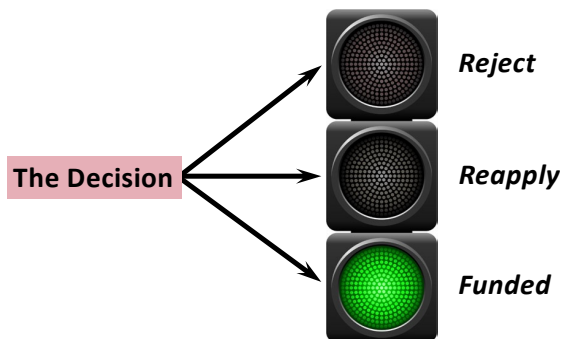
Step 13 Proof and spell check



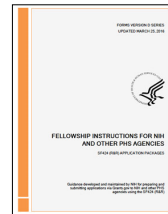
Step 14 Submit the proposal



Step 15 Receive and respond to reviews



Two sources of information should be your constant companions as you write



SF424 (R&R) Instructions (Fellowships)
—> detailed instructions for each section of the application

<https://grants.nih.gov/grants/how-to-apply-application-guide.html>

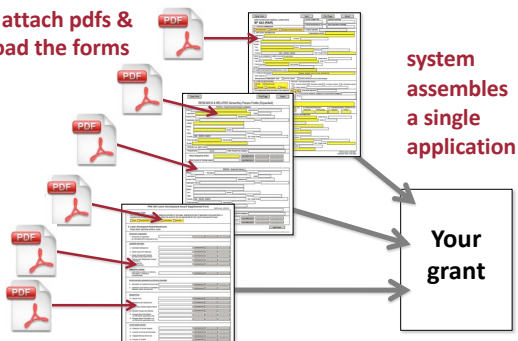
use Forms I after May 25, 2025



Program Announcement (PA) for your Award
—> detailed review criteria

The electronic submission system assembles the separate pdfs & forms into a single application

You attach pdfs & upload the forms



Fellowship applications have three parts

"Front Pages"



SF 424 (R&R) Form
Other Project
Information
Key Persons

The Proposal



PHS Fellowship
Supplemental
Form

Support Statements



References
Mentors
Consultants
Collaborators

Example Forms posted on Moodle

As the applicant you have three tasks

Complete the Front Pages

Work with your Grants Office

Write the Proposal

Draft with input from mentors & colleagues

Manage Colleagues

Contact References Collaborators

Fellowship applications will be reviewed using three criteria



Candidate's Preparedness and Potential



Research Training Plan



Commitment to Candidate

Criteria for applications submitted after May 25, 2025

These criteria are addressed in the review template

Candidate's Preparedness and Potential

Research Training Plan

Commitment to Candidate

Sample template with detailed instructions posted on Moodle

Meeting these criteria requires input from your mentors and others (references, collaborators)



Candidate



Research Training Plan



Commitment to Candidate

You Mentors Others



Complete the "Front Pages" — four sections

SF 424 (R&R) Form

— standard cover for all NIH applications

Other Project Information

— human subjects, vertebrate animals

Project Performance Site

— location

Senior/Key Persons

— you & your mentors

Consult with your grants office for help

Complete the SF 424 (R&R) Pages according to standard instructions

Title: limited to 200 characters & spaces

Cover letter attachment must include the list of Referees with complete contact information

Indicate on the *Other Project information Form* if you are using human subjects or vertebrate animals

Human Subjects

Vertebrate Animals

You may be participating in your mentor's projects that already have IRB or IACUC approval

For animal studies you need to be enrolled in the institution's animal welfare training & safety programs

Other Project Information Form has key sections

7. Project Summary/Abstract*

- no more than 30 lines
- should include your research project & your training plan

8. Project Narrative*

- relevance to public health

9. Bibliography & References*

- for whole proposal

10. Facilities & Other Resources

- describe how the scientific environment contributes to the probability of success — *template posted on Moodle*

11. Equipment

- major items of equipment already available for the project

**these items are your responsibility to write*

7. Project Summary/Abstract	
8. Project Narrative	
9. Bibliography & References Cited	
10. Facilities & Other Resources	
11. Equipment	

Facilities and Other Resources should document a strong research program

Describe how the **scientific environment** in which the research will be done **contributes to the probability of success**

Fellowship applications must also include a description of the **organizational scientific and educational facilities and resources** necessary and accessible to the fellowship candidate

Example template posted on Moodle

Completing the Project Performance Site is usually straightforward

Location of research & training — the sponsoring institution

List other sites if you will be working or training elsewhere

You and your sponsors (mentors) are listed on the Senior/Key Person Profile

You are listed as **Principal Investigator**

List your **sponsors & co-sponsors***

(*Note:* individuals listed here cannot be used as references)

*Collaborators, consultants, advisory committee members, and contributors are usually not considered key persons

NIH biosketches are required for all key persons



Your application is a collaboration between you & your mentors



You (the "applicant") are **Principal Investigator**

- you are responsible for submitting the application
- you write the research training plan in collaboration with your mentors

Your advisor/mentors are the **Sponsors**

- they must write sections of the application

You must involve your advisor/mentor early & often in crafting the application!

All parts of the proposal must be integrated into a coherent and compelling story



The proposal itself is assembled in the “Fellowship Supplemental Form”

— the sections match the review criteria

Candidate Section

Research Training Plan

Commitment to Candidate
Mentoring and Training
Environment

The fellowship application has strict page limits

Candidate's Goals, Preparedness, and Potential	3
Research Training Plan	
Training Activities and Timelines	3
Research Training Project Specific Aims	1
Research Training Project Strategy	6
Training in the Responsible Conduct of Research	1
Commitment to Candidate	
Sponsor(s) Commitment	6
Letters of Support from Collaborators, Contributors, and Consultants	6

The **Candidate** must demonstrate the potential for independent research

Review instructions:

- 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.

The Candidate Section — “Goals, Preparedness, and Potential” — contains four components

- Overall Training Goals**
 - goals for the proposal and long-term career goals
- Candidate's Preparedness**
 - candidate's educational, scientific & professional experiences that prepare for the proposed plan
- Candidate's Self-Assessment**
 - 2–4 current characteristics that are likely to contribute to achieving the research training
 - 2–4 areas of development during the fellowship
- Scientific Perspective**
 - how the project will advance the field
 - broader, unsolved question in the scientific field

Total of 3 pages

Your career story has a past, present, and future



Writing the Candidate Section will be covered in Session 4

Fellowship applicants require a specific biosketch format

A. Personal Statement

Briefly describe why you are well-suited for your role(s) in this project

B. Positions and Honors

C. Contributions to Science

Briefly describe up to five of your most significant contributions to science

Include a link (URL) to a complete bibliography in a public database (My Bibliography)

see: <https://grants.nih.gov/grants/forms/biosketch.htm>



The Research Training Plan must prepare the candidate for their next career stage

Review instructions:

- 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.



The Research Training Plan has four components

Training Activities and Timeline

- coursework, professional development (3 pages)

Research Training Project — *Specific Aims*

- 1-page summary

Research Training Project — *Strategy* (6 pages)

- Scientific Foundation and Rationale
- Approach

Training in the Responsible Conduct of Research

- required format (1 page)

The Training Activities and Timeline should address the candidate's goals and areas for development

The research training plan activities should be individually tailored and well-integrated:

- describe planned activities by year (use a table)
- explain how activities address the needs defined by self-assessment
- examples of how proposed training will facilitate transition to next career stage
- describe why sponsors, collaborators & research environment are appropriate for the training plan

Writing the Training Activities and Timeline Section will be covered in Session 4

The Specific Aims Page is a concise summary of the goals, rationale, aims, and outcomes of the plan

State concisely the broader goals of the proposed research training project to . . .

- test a stated hypothesis
- create a novel design
- solve a specific problem
- challenge an existing paradigm or clinical practice
- address a barrier to progress in the field
- develop new technology

List specific objectives or aims

Summarize expected outcomes and impact on the field

Writing the Specific Aims Page will be covered in Session 3

The Research Training Plan Strategy has two components

Scientific Foundation and Rationale

- context of proposed research; rigor of prior research
- rationale: unaddressed needs & why important
- impact on research in candidate's field

Approach

- overall strategy, methodology, and analyses to be used to accomplish the specific aims
- plans to address weaknesses in the rigor of the prior research
- experimental design and methods proposed and how they will achieve robust and unbiased results
- potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims

Writing the Research Strategy will be covered in Session 5

NIH has specific requirements for RCR instruction

Instruction must recur at each career stage
(student, postdoc, faculty)

Face-to-face instruction is required (min. 8 hours)
(online courses alone are not sufficient)

You must address **5 Instructional Components**:

1. Format of Instruction
2. Subject Matter
3. Faculty Participation
4. Duration
5. Frequency

*GSK Statement
posted on
Moodle*

Limited to 1 page (item 7)

see: NIH Notice NOT-OD-22-055

The **Commitment** to the candidate must support the goals of the candidate and research training plan

Review instructions:

- 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.



Commitment to Candidate, Mentoring and Training Environment has two components

Sponsor(s) Commitment

- enabling a meaningful evaluation of training
- to be completed by sponsor and each co-sponsor
- 6 pages total

Letters of Support from Collaborators, Contributors, and Consultants

- documenting commitment of support for specific aspects of research training plan
- NOT letters of recommendation
- 6 pages total

The Commitment Section will be covered in Session 6



The Sponsor and Co-Sponsor(s) must provide statements

A. Mentoring Approach & Candidate Mentoring Plan

- to ensure the candidate's career advancement

B. Prior Commitment to Training and Mentoring

- mentor's previous training experience

C. Commitment to the Candidate's Training Plan

- what is planned to train the candidate

D. Research Training Environment

- how it will meet the needs of the candidate

E. Candidate's Potential

- sponsor's assessment of the candidate

Combined mentor statements limited to a total of 6 pages



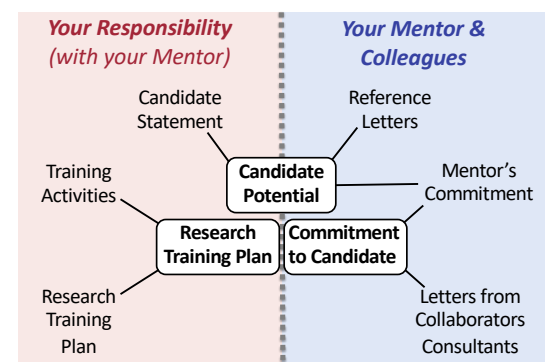
Your Mentors *must* have a strong record of research and mentoring

Your mentor should meet these qualifications
(& document them adequately!)

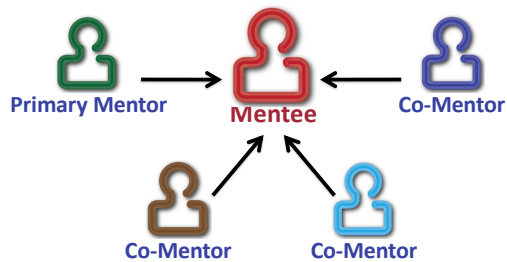
If not, provide a plan to correct any deficiencies:

- co-mentor(s): "a mentor for your mentor"
- mentoring advisory team

The components of the application relate to the three review criteria



Candidates are encouraged to identify more than one mentor, i.e., a mentoring team



Use your mentoring team to complement the expertise of you and your primary mentor

Your achievements and potential are also documented by letters of reference

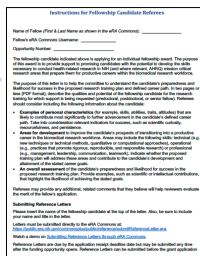
Required for Fellowship applications

- 3–5 letters from individuals other than those involved in the application i.e., not sponsor/mentor
- recommended: at least one referee not in your current department

Letters should address candidate's competence & potential as an independent investigator

Steps to follow for reference letters

1. Identify your referees
2. Send each referee the **Instructions for Referees** include,
 - your name
 - eRA Commons Username
 - Opportunity Number
3. Referees must submit letters to eRA Commons by the **grant deadline**



see: <http://grants.nih.gov/grants/how-to-apply-application-guide/submission-process/reference-letter.htm>

Tips for Best Reference Letters

Develop effective working relationships with potential referees

Keep your referees updated on your progress

Make your referees' job easy, provide:

- current CV, reprints
- draft of proposal

Remember: this is a personal & professional relationship that may last your entire career

Who will write letters of reference for you?

You may include letters of support from individuals who will contribute to your research training plan

Collaborators

- individuals outside your laboratory who will be actively involved in your research project

Contributors

- individuals providing reagents, resources, etc.

Consultants

- individuals outside your laboratory who provide expert advice on your research project

- letters of support should state their anticipated role and contributions (6 pages total)

Make a plan to engage & work with your mentor and other colleagues

Mentors (Sponsors)

- feedback on proposal
- Mentor's statement
- biosketches

References: who will write letters of support

- identify & contact

Collaborators, Consultants

- identify & contact