NRSA General Information

The information included in this document is from three sources: the SF424, the Notice of Funding Opportunity (NOFO) (PA-23-272), and the Fellowship Workshop presented January 31, 2025.

The “eRA Commons User Name” field is required for the PD/PI. If you do not have an eRA Commons User Name, contact Research Administration or Sponsored Projects.

All PD(s)/PI(s) must be registered with [ORCiD](https://orcid.org/).  If you do not have an ORCID ID, you can set this up yourself at <https://libguides.library.arizona.edu/c.php?g=1006468&p=7308092>

**For all**[**Fellowship (F)**](https://grants.nih.gov/funding/funding-categories/research-training-and-career-development/individual-fellowships)**Applications**

Please note that you will be using FORMS-I. 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 |
| **Candidate's Goals, Preparedness, and Potential** (FORMS-I and later) | 3 |
| **Training Activities and Timelines** (FORMS-I and later) | 3 |
| **Research Training Project Specific Aims** (FORMS-I and later) | 1 |
| **Research Training Project Strategy** (FORMS-I and later) | 6 |
| **Training in the Responsible Conduct of Research** | 1 |
| **Sponsor(s) Commitment**(FORMS-I) | 6 |
| **Letters of Support from Collaborators, Contributors, and Consultants** | 6 |
| **Applications for Concurrent Support**(when applicable) | 1 |
| **Biographical Sketch** | 5 |

There are two components to the Fellowship application: the Notice of Funding Opportunity (NOFO) and the forms package (SF424). You must follow the instructions for BOTH, but the SF424 instructions always supersede the information in the NOFO. You will have less to do with the SF424 as Research Administration will complete the package. You will supply information needed and the sections that will be uploaded.

The NOFO will list the NIH Institutes and Centers accepting applications.

**Format Information**

Text in your attachments must follow these minimum requirements:

* **Font size:** Must be 11 points or larger. Smaller text in graphics, figures, graphs, diagrams, and charts is acceptable, as long as it is legible when the page is viewed at 100%.
	+ Some PDF conversion software reduces font size. It is important to confirm that the final PDF document complies with the font requirements.
* **Type density:** Must be no more than 15 characters per linear inch (including characters and spaces).
* **Line spacing:** Must be no more than six lines per vertical inch.
* **Text color:** No restriction. Though not required, black or other high-contrast text colors are recommended since they print well and are legible to the largest audience.
* **Fonts:** We recommended the following fonts, although other fonts (both serif and non-serif) are acceptable if they meet the above requirements.
* Arial
* Georgia
* Helvetica
* Palatino Linotype
* **Margins:** Provide at least one-half inch margins (*½"*) — top, bottom, left, and right — for all pages. No applicant-supplied information can appear in the margins.

Use paper (page) size no larger than *standard letter paper size (8 ½" x 11”)*.

**TIP:**

With changes to the Fellowship application there is more emphasis on training potential and less emphasis on the sponsor.

Objectives to focus the reviewer on key assessments: preparedness and potential, the research training plan and the commitment to the candidate.

At the Workshop several presenters stated that the Biosketch is where they start; it is the first thing they read. It sets the stage for their review of the rest of the application. Send time preparing this, concentrating on the Personal Statement.

**Descriptive Title of Applicant’s Project**

Enter a brief descriptive title of the project. The descriptive title is **limited to 200 characters**, including spaces and punctuation.

**New Applications:** You must have a title different than any other NIH or other PHS Agency project submitted for the same application due date with the same Project Director/Principal Investigator (PD/PI).

**Proposed Project** **Start Date:**

This field is required. Enter the proposed start date of the project. The start date is an estimate and is typically at least nine months after application submission. The project period should not exceed what is allowed in the NOFO.

**Proposed Project** **Ending Date:**

This field is required. Enter the proposed ending date of the project.

**Additional Instructions for Fellowship:**

Individual fellowship applicants **must include a cover letter** that contains a list of referees (including name, departmental affiliation, and institution).

**Project Summary/Abstract**

The project summary is a succinct and accurate description of the proposed work and should be able to stand on its own (separate from the application). This section should be informative to other persons working in the same or related fields and understandable to a scientifically literate reader. Avoid both descriptions of past accomplishments and the use of the first person. Please be concise.

Format:

This section is **limited to 30 lines of text** and must follow the required font and margin specifications. A summary that exceeds the 30-line limit will be flagged as an error by the Agency upon submission. Use of hyperlinks and URLs in this section is not allowed unless specified in the Notice of Funding Opportunity.

Content:

State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project (i.e., relevance to the mission of the agency). Describe the research design and methods for achieving the stated goals. Be sure that the project summary reflects the key focus of the proposed project so that the application can be appropriately categorized.

Additional Instructions for Fellowship:

In addition to summarizing the research project to be conducted under the fellowship award, describe the fellowship training plan and the environment in which the research training will take place.

**Project Narrative**

Content:

Describe the relevance of this research to public health in, at most, **three sentences**. For example, NIH applicants can describe how, in the short or long term, the research would contribute to fundamental knowledge about the nature and behavior of living systems and / or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

**Bibliography & References Cited**

Content:

See the following instructions for which references to include in the “Bibliography and References Cited” attachment.

Additional Instructions for Fellowship:

The “Bibliography & References Cited” attachment should include any references cited in F.430 - PHS Fellowship Supplemental Form and in the F.500 - PHS Human Subjects and Clinical Trials Information form.

When citing articles that fall under the Public Access Policy, were authored or co-authored by the applicant, and arose from NIH support, provide the NIH Manuscript Submission reference number (e.g., NIHMS97531) or the PubMed Central (PMC) reference number (e.g., PMCID234567) for each article. If the PMCID is not yet available because the Journal submits articles directly to PMC on behalf of their authors, indicate “PMC Journal – In Process.” NIH maintains a list of such journals.

Citations that are not covered by the Public Access Policy, but are publicly available in a free, online format may include URLs or PubMed ID (PMID) numbers along with the full reference. Active hyperlinks in this section are not allowed. The references should be limited to relevant and current literature. While there is not a page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research.

You are allowed to cite interim research products. Note: interim research products have specific citation requirements. See related Interim Research Prpduct FAQ for more information.

**Facilities & Other Resources**

Format:

The “Facilities & Other Resources” attachment is required unless otherwise specified in the NOFO.

Content:

Describe how the scientific environment in which the research will be done contributes to the probability of success (e.g., institutional support, physical resources, and intellectual rapport). In describing the scientific environment in which the work will be done, discuss ways in which the proposed studies will benefit from features of the scientific environment or from unique subject populations or how studies will employ useful collaborative arrangements.

If there are multiple performance sites, describe the resources available at each site.

When working with biohazards and any other potentially dangerous substances, describe any special facilities and measures implemented to mitigate threats to human health and the environment. Note: Information about select agents must be described in the Research Plan, Select Agent Research.

**Additional Instructions for Fellowship:**

Include a description of the organizational scientific and educational facilities and resources necessary and accessible to the fellowship candidate to complete the proposed research training plan. This section may include text derived from organizational sources but should be limited to a description of the facilities and resources needed for the proposed research training plan and not a general description of facilities and resources at the applicant organization.

The Facilities and Other Resources document that is available on the College of Nursing website includes general information about the University of Arizona and the College of Nursing thus most of it will not be useful for this section. A template has been created specifically for these applications.

**Candidate Section**

**2. Goals, Preparedness and Potential**

This is **limited to 3 pages**.

Content:

Organize the Candidate’s Goals, Preparedness, and Potential for the Research Training Proposal in the specified order and use the instructions provided below. Start each section with the appropriate heading – Overall Training Goals, Candidate’s Preparedness, Candidate Self-Assessment, and Scientific Perspective.

2. Goals, Preparedness and Potential (3 pages)

Overall Training Goals

Candidate’s Preparedness

Candidate’s Self-Assessment

Scientific Perspective

**A. Overall Training Goals**

Candidates should describe the goals for the proposed research training plan and the long-term goals for a career in biomedical research workforce. Include training goals and career goals. This is not all related to the research but also to how you will grow and develop new skills. Relate the fellowship goals to the long-term career goals. Candidates should describe their motivation for pursuing a career in the biomedical research workforce.

**B. Candidate’s Preparedness**

This section provides information regarding the educational, scientific, and professional experiences that prepare the candidate for the proposed research training plan. The candidate should address the following:

* How relevant education, scientific and professional activities and experiences contributed to the candidate’s scientific development and preparation for the current research training plan. Examples may include coursework, research experiences, conference attendance, internships, and employment. You can expand on biosketch, but don’t duplicate it.
* Any additional activities and experiences that demonstrate an interest and commitment to a career in the biomedical research workforce. Examples may include seeking out opportunities for research skill development or engaging in leadership, service, teaching, or outreach activities.

**C. Candidate’s Self-Assessment**

The purpose of this self-assessment is to provide an opportunity for the candidate to define their 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. What is it that makes you best suited to succeed. The candidate should describe:

* Two to four current characteristics that are likely to contribute to achieving the goals for research training.
* Two to four specific areas of development during the fellowship to attain the stated research training and career goals.

**D. Scientific Perspective**

This section is intended to provide information about the candidate’s potential to think about and express ideas within a scientific field. In this section, candidates should explain the following:

* Why this field of science is important and the ways the chosen research training project will advance the field.
* A broader, unresolved scientific question in the chosen scientific field, the importance of the problem, and the ways research might advance the scientific field.

**TIPS FOR WRITING THIS SECTION**

* **Use the EXACT headings** for each section
* **Write in the first person**… “I, my”
* **Make it personal** – this is the place where reviewers will get to know YOU
* **Write in 3’s**… list the top three things you want them to know – *exhaustive lists lose the reader*
* **Use words that build confidence** in the reviewer about skills sets attained, *e.g., “developed expertise”, “became proficient”*
* ***BE SPECIFIC! –*** *don’t leave the reviewer wondering about a detail*

**3. Training Activities and Timeline**

This is **limited to 3 pages**.

Content:

The research training plan activities should be individually tailored and well-integrated. The planned activities should address the candidate’s goals and identified areas for development. The application should describe the collaborative process between the candidate and the sponsor(s) in the development, writing, review, and editing of the research training plan, including the research training project aims and strategy.

Describe, by year, the planned activities (coursework, professional development, research training project, mentoring, clinical activities, etc.) during the proposed award. Tie these back to the specific aims. Estimate the percentage of time to be devoted to each activity. The percentage should total 100 for each year. This can be a chart.

Explain how the training activities will develop the areas defined in the self-assessment section and help to meet the fellowship goals.

Provide specific examples of how the proposed research training will facilitate the transition to the next career stage.

Describe why the Sponsor(s), collaborators, and research training environment are appropriate for the proposed research training plan. Candidates should expand upon, but not duplicate information found in the Facilities and Other Resources section or in the Sponsor(s) section describing the Research Training Environment.

**4. Research Training Project — Specific Aims**

This is **limited to 1 page**.

Content:

State concisely the broader goals of the proposed research training project (for example, 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, or develop new technology).

List succinctly the specific objectives or aims of the research training project to be completed by the candidate during the funding period. Rationale, why researching this, why this project needs to be done. The aims should be related but not dependent. If including hypotheses, state aims first, then hypotheses. Summarize the expected outcome(s). Include the potential impact and significance that the results of the proposed research training project will have on the research field(s) involved.

**Tips From Workshop:** In the first paragraph, start broad, introduce your research. Capture the audiences attention.

State what is known. State the gaps in the field and what needs to be done about it.

In the second paragraph state your proposed solution; the what, why, and how. State the long-term goal. State the hypothesis and rationale.

For aims 2-3, give each an active title, avoid passive language. The aims should be related, but independent. Include a sub-hypothesis, if appropriate. Give a brief experimental approach.

In the summary paragraph, explain how this is innovative, the expected outcomes, and the impact. Connect the aims to your training and career trajectory.

Aims page 4-paragraph option:

Paragraph 1 Introduction – the broader goals of the project (test a hypothesis, solve problem change a paradigm, address a barrier)

Paragraph 2 Rationale – why you are researching this (data illustrating the issue)

Paragraph 3 Specific Aims – the objectives of the research training project

Paragraph 4 Outcomes – the impact and significant this will have on the field

This may be the only page fully read by some members of the Review Panel.

It is often considered the “make or break” element of a proposal.

It should tell the whole story of your application.

REMEMBER: There are 2 review audiences: those who are assigned to read your whole application and those who may not have read the whole thing.

**An effective Aims page makes the case that:**

* the research is important
* the methods are likely to be successful
* the applicant is the right person and team to do the project

**5. Research Training Project — Strategy**

This is **limited to 6 pages**.

Content:

Although the fellowship research training project may fall within the larger funded research program of the sponsor(s), the research training project strategy must be written in the candidate’s own words. Using language written by others is not allowed in this section because the application is intended to provide information regarding the candidate’s understanding of the research training project and ability to communicate the scientific rationale and approaches. Additionally, this section will provide information to evaluate the training potential of the research training project.

Organize the Research Training Project Strategy in the specified order and use the instructions provided below, unless otherwise specified in the NOFO. Start each section with the appropriate section heading – for example, Scientific Foundation and Rationale, and Approach. Cite published experimental details in the Research Strategy and provide the full reference in F.220 - R&R Other Project Information Form, Bibliography and References Cited.

**Note for Candidates with Multiple Specific Aims:** Candidates may address the Significance and Approach either for each Specific Aim individually or for all of the Specific Aims collectively.

**1. Scientific Foundation and Rationale**

* Provide the context for the proposed research training project. Include information on published and unpublished findings serving as the scientific foundation for the proposed research training project. Describe the strengths and weaknesses in the rigor of the prior research that serves as the key support for the proposed project.
* Describe the rationale for the research training project, including unaddressed areas for research and why this area of research is interesting and important.
* Describe how achieving the proposed research training project goals will advance biomedical research in the candidate’s chosen field.

**2. Approach**

* Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Describe this for each specific aim. Describe plans to address weaknesses in the rigor of the prior research that serves as the key support for the proposed project. Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Unless addressed separately in the Resource Sharing Plan attachment, include how the data will be collected, analyzed, and interpreted, as well as any resource sharing plans, as appropriate.
* Explain the importance of the problem or critical barrier to progress that the proposed project addresses.
* Describe the strengths and weaknesses in the rigor of the prior research (both published and unpublished) that serves as the key support for the proposed project.
* Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
* Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.
* If the applicant is proposing to gain experience in a clinical trial as part of his or her research training, describe the relationship of the proposed research project to the clinical trial.
* For trials that randomize groups or deliver interventions to groups, describe how your methods for analysis and sample size are appropriate for your plans for participant assignment and intervention delivery. These methods can include a group- or cluster- randomized trial or an individually randomized group-treatment trial.
* Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
* If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.
* Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.
* Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised. If applicable, a full discussion on the use of select agents should appear in the Select Agent Research attachment below.
* If research on Human Embryonic Stem Cells (hESCs) is proposed, but an approved cell line from the NIH [hESC Registry](https://grants.nih.gov/stem_cells/registry/current.htm) cannot be chosen, provide a strong justification for why an appropriate cell line cannot be chosen from the registry at this time.
* If you are proposing to gain [clinical trial research experience](https://grants.nih.gov/grants/glossary.htm#ClinicalTrialResearchExperience), briefly describe your role on the clinical trial.

**Tips from the Workshop:**

* Try to tie your methodology (the how) back to the potential outcome(s) to remind the reviewer
* Don’t deeply explain proposed tasks that are standard in the field. This takes up space and wears out the reader.
* Have your sponsor/mentor review your design as early as possible to avoid extensive re-writing

**7. Training in the Responsible Conduct of Research**

This is **limited to 1 page**.

Content:

The plan must address the five required instructional components outlined in the NIH Policy on Instruction in the Responsible Conduct of Research (RCR), as more fully described in the [NIH](https://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.2.3_application_requirements_and_receipt_dates.htm#Responsi) [Grants Policy Statement, Section 11.2.3.4: Responsible Conduct of Research](https://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.2.3_application_requirements_and_receipt_dates.htm#Responsi):

* Format: Describe the required format of instruction (i.e., face-to-face lectures, coursework, and/or real-time discussion groups). A plan with only on-line instruction is not acceptable.
* Subject Matter:Describe the breadth of subject matter (e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, and research ethics).
* Faculty Participation: Describe the role of the sponsor/mentor(s) and other faculty involvement in the instruction.
* Duration of Instruction: Describe the total number of contact hours of instruction, taking into consideration the duration of the program.
* Frequency of Instruction: Instruction must occur during each career stage and at least once every four years. Document any prior instruction during the candidate's current career stage, including the inclusive dates instruction was last completed.

**8. Sponsor(s) Commitment**

This is **limited to 6 pages**.

**Who must complete the “Sponsor(s) Commitment ” attachment:**

The “Sponsor(s) Commitment Statement” attachment is required. The sponsor and each co-sponsor must provide statements.

The Sponsor and Co-Sponsor Statements must be appended together and uploaded as a single PDF file.

**Cover Letter**

Individual fellowship applicants must include a cover letter that contains a list of referees (including name, departmental affiliation, and institution).

The letter should contain any of the following information, as applicable:

1. Application title.
2. Title of NOFO (PA or RFA).
3. Statement that you have attached any required agency approval documentation for the type of application submitted. It is recommended that you include the official communication from an NIH official as part of your cover letter attachment.
4. When intending to submit a video as part of the application, the cover letter must include information about the intent to submit it; if this is not done, the video will not be accepted.
5. Include a statement in the cover letter if the proposed studies will generate large-scale human or non-human genomic data as detailed in the NIH Genomic Data Sharing Policy (see the NIH Grants Policy Statement, Section 2.3.7.10: NIH Data Management and Sharing and Genomic Data Sharing and Section 8.2.3.2: Genomic Data Sharing (GDS) Policy).
6. Include a statement in the cover letter if the proposed studies involve human fetal tissue obtained from elective abortions (HFT), regardless of whether or not Human Subjects are involved and/or there are costs associated with the HFT.

**Core Review Criteria**The **Overall Impact Score** typically encompasses the elements of the core review and reflects the reviewer’s assessment of the likelihood for the candidate to achieve training goals and complete impactful research toward long-term career goals.

***Candidate***

*Is the candidate qualified, available and well-suited to the training/career?*

***Career development plan/training goals***

*Are the goals feasible and are training plans adequate to achieve them?*

***Research Plan***

*Is the research feasible and will it advance the field?*

***Mentor(s), Collaborator(s), Consultants***

*Is there adequate faculty support to guide the applicant?*

***Environment and Institutional Commitment***

*Are the stated resources adequate to support the candidate’s training/career goals?*

**NRSA individual fellowship applications receive a secondary level of review by Institute/Center staff**

**Second review criteria include:**

* Scientific Review Group’s recommendation concerning the overall merit of the application
* Relevance of the application to the Institute/Center's research training priorities and program balance
* Availability of funds

***Major consideration is given to the applicant’s:***

* Potential for a productive career
* Need for the proposed training
* Degree to which the research training proposed, the sponsor, and the environment, will satisfy those needs

**Common Pitfalls**

* Lack of clarity
* Not following formatting instructions
* Lack of experience/expertise
* High-risk project with little rationale
* Not addressing potential pitfalls/alternatives
* Not emphasizing career trajectory
* Lack of front-end planning