Graduate Writing Lab

Yale
Poorvu Center

NIH NRSA F30 & F31 Essential Documents Checklist

Document	Max Length	Resources	Draft	Final
Title of Project				
Project Summary/Abstract	30 lines of text			
Project Narrative	3 sentences			
Cover Letter with List of Reference Letter Writers	1 page			
Candidate's Goals, Preparedness, and Potential*	3 pages			
Biosketch*	5 pages			
Training Activities and Timeline*	3 pages			
Specific Aims	1 page			
Research Strategy	6 pages			
Bibliography & References Cited				
Introduction to Application (for resubmission applicants only)	1 page			
Sponsor(s) Biosketch(es)	5 pages	Advisor		
Sponsor(s) Commitment	6 pages	Advisor		
Letters of Support from Collaborators, Contributors, and Consultants (if applicable)	Up to 6 pages	Collaborators / Contributors / Consultants		
Training in Responsible Conduct of Research	1 page	DGS / department admin/senior students		
Description of Candidate's Contribution to Program Goals (F31 – Diversity only)		DGS / department admin		
Facilities & Other Resources		Advisor / senior students		
Resources Sharing Plan		Advisor / senior students		
Equipment		Advisor / senior students		
Vertebrate Animals (if applicable)		Advisor / senior students		
Human Subjects (if applicable)		Advisor / senior students		
Select Agents (if applicable)		Advisor / senior students		

[Instructions (Version I)](#) **for all components of the application and detailed instructions.**

*NOTE: Application changes starting January, 2025

Starting for applications submitted on or after January 25, 2025, the NIH is adjusting the application components and review criteria—the components indicated with asterisks above have undergone changes. [The broad changes are explained here](#), and the details are explained in the [Instructions (Version I)](#). It will likely take a few application cycles to understand exactly how these changes will affect applications and the review process. While we wait for more information about these changes, give yourself extra time to work on your application materials!

Review Criteria

Reviewers will score your application based on the following criteria:

Candidate's Preparedness and Potential: What are the relevant experiences that demonstrate the candidate's qualifications to successfully complete the proposed work? What are areas the candidate will develop for the duration of the fellowship?

Research Training Plan: Is the proposed project high quality and likely to significantly contribute to its field of research? Will the training activities help meet the fellowship goals and facilitate the candidate's transition to the next career stage?

Commitment to Candidate: Will the sponsor(s), collaborators, and institution adequately support the applicant's scientific/professional development and attainment of career goals?

Application Components You Have to Write

Project Summary/Abstract (30 lines)
- Project's intellectual significance and relevance to human health
- Brief description of what is known about your research question
- How your project will address the research question and connect to human health
- Note: this text will be published on a public NIH database

Project Narrative (3 sentences)
- Very brief description of research question you are addressing, understandable to a layperson
- What your results will add to knowledge about a particular disease or question
- Note: this text will be published on a public NIH database

Cover Letter (1 page)
- Should be addressed to the Division of Receipt and Referral
- Application title
- List specific funding opportunity title of the NIH initiative
- List your reference letter writers, their professional affiliations, and institutions.
- Include a statement if your proposed work will generate large-scale human or non-human genomic data (see [NIH Grants Policy Statement 2.3.7.10](#))
- Include a statement if the proposed work will use human fetal tissue obtained from

elective abortions (see [NIH Grants Policy Statement 2.3.7.11](#))

Candidate's Goals, Preparedness, and Potential

A. Overall Training Goals
    - Define your long-term career goals with a focus on a career in biomedical research. Be as specific as possible. For example, do you want to be a PI at an R1 academic institution, a primarily undergraduate institution, work in industry, etc.?
    - Describe your motivation for pursuing a career in biomedical research and relate how the fellowship goals align with your long-term goals.
B. Candidate's Preparedness
    - Describe relevant educational, scientific, and professional experiences (i.e., coursework, research experiences, conference attendance, internships, and employment) and how they have contributed to your scientific development and prepared you to successfully complete the proposed work.
    - A narrative of your dissertation research: one paragraph per aim, including the goal of that aim, progress on that aim, and how you'll train for those goals.
C. Candidate's Self-Assessment
    - Define 2-4 current characteristics (i.e., relevant skills, abilities, traits or attitudes) that are likely to contribute to achieving the research training.
    - Identify 2-4 specific areas of development during the fellowship to attain the stated research training and career goals previously defined in the Overall Training Goals.
    - Find and describe unique opportunities tailored to your career trajectory; these should go beyond standard degree requirements.
D. Scientific Perspective
    - In this section is where you will get a chance to showcase your ability to think critically and express yourself as a scientist. Therefore, discuss the significance of this field of science and the impact of the proposed work. In other words, why is it important and how will it advance the field?
    - Next, you want to show versatility and your ability to think critically beyond your proposed work by explaining a broader, unresolved scientific question in the chosen scientific field, the importance of the problem, and the ways biomedical research might advance the scientific field.

PI (Applicant) Biosketch (5 pages)

A. Personal Statement
    - Describe your *scientific* background (not personal background) and how it has prepared you to conduct the proposed work.
    - Create a narrative around how your research interest has evolved over time and identify your future career and research goals.
    - You can cite up to 4 publications or research products that showcase your qualifications.
B. Positions, Scientific Appointments, an Honors
    - Describe in reverse chronological order all positions and scientific appointments.
    - Include scholarships, fellowships, and other development awards.
    - Could include relevant professional memberships and leadership roles.

C. Contributions to Science (no more than ½ page per item)
- Describe up to give (usually 2-3) of your most significant contributions to science. Contributions that follow a similar theme can be grouped together even if they were not performed in the same lab.
- These demonstrate engagement with the academic community and development of scientific skills and knowledge, especially if they're relevant to your proposal.
- For each contribution, include: title, scientific background and significance, central findings or conclusions, your role, impact on progress of science or application to health and technology
- For each contribution, you can list up to 4 "research products" that are relevant to the contribution. These can include publications (in prep, under review, and published), posters, presentations, theses, patents, protocols, software, models, educational aids/curricula, databases, etc.

Training Activities and Timeline (3 pages)
- By year, list activities you will be involved in (i.e., research, coursework, seminars, lab meetings, workshops, clinical activities, mentoring, professional development, etc.) and the % of time each will require (can be a table).
- Include when each Aim, course, professional development activity, and training activity will be accomplished
- Explain how these activities address the training gaps and areas defined in the Self-Assessment section. Discuss how the proposed research and training activities will help you gain those specific skills during your training—remember that this is a *training* fellowship!
- Give specific examples on how these activities will help you transition to the next stage in your career
- Use specifics: techniques used, unique university or program environment that will foster your goals, and the mentors that will help you learn these skills
- Describe how your sponsor(s), collaborators, and training environment are well-suited for the proposed training plan (this fulfills previous requirement for Selection of Sponsor and Institution).
- F30 Applicants: Outline exactly when you will take medical courses and how you will split up your time (make sure it is reasonable)

Specific Aims (1 page)
- This document briefly outlines the background, significance, hypothesis, broader goals and specific aims, experimental plan, and potential impact of the proposed work that will be explained in detail in the Research Strategy.

Research Strategy (6 pages)
- This includes two main sections: Scientific Foundation and Rationale (includes background, the central hypothesis, and the significance of the project) and Approach (details your Aims).
- See our "Tips for Writing the Research Strategy" handout for details and advice!

Introduction to Resubmission (if you're resubmitting an application; 1 page)

- This will be the first thing reviewers will see in your resubmitted application. Spend a few sentences reiterating your overall goal of the project and thanking the reviewers for the strengths they saw in your application, then respond to the critiques in your summary statement, making clear what changes you have made and indicating their location within the text
- Be sure to respect the reviewers and thank them for their input. Embrace the critiques and use them to improve your application!
- Also briefly indicate any new information that doesn't address the reviewers' critiques.

Application Components You Get From Others (and potentially edit)

Sponsor Biosketch (5 pages)

A. Personal statement: research interests, past research accomplishments (papers, grants), *number of students mentored*, student publications, student placements
B. Positions and Honors
C. Contribution to Science
D. Research Support

Sponsor/Co-sponsor Statement (6 pages)

- If your sponsor hasn't written this document before, they should refer to [this document (Fellowship Instructions for NIH- Version I)](#) for instructions (page 65-67) and/or get an example from a colleague.
- Mentors should make sure each section provides reviewers with a comprehensive view of the candidate.
A. Mentoring Approach and Candidate Mentoring Plan
B. Prior Commitment to Training and Mentoring: no more than 2-5 recent trainees
C. Commitment to the Candidate's Research Training Plan: describe the frequency, duration, and nature of individual meetings with the candidate throughout the duration of the fellowship.
D. Research Training Environment: In this section, the mentor should describe the facilities and resources available for the candidate to successfully complete the proposed work. The sponsor can also list opportunities for professional development and intellectual interactions available (seminars, presentations, lab meetings, courses, journal clubs).
E. Candidate's Potential: Describe the applicant's qualifications, their potential for a research career, and how they would benefit from the research training plan.

Reference Letters

- At least 3 reference letters (up to 5) must be submitted through eRA [Commons](#) for your NRSA application.
- Individuals must be familiar with your qualifications (i.e., skills, abilities, traits, and attitudes), training, and career/research interests in order to provide an overall assessment of your preparedness and likelihood of success.
- Download and update the instructions (i.e., add your name as shown in eRA Commons, your eRA Commons username, and funding opportunity number, etc.) before sharing them with your referees.

We recommend sharing your Specific Aims, an updated version of your curriculum vitae or Biosketch, and sections A-C of the Goals, Preparedness, and Potential document with them so that they can align their letters with your application materials.Letters of Support from Collaborators, Consultants, or Advisors

- If any collaborators, consultants, or advisors will contribute to your planned project and training, include letters describing their anticipated role

Training in Responsible Conduct of Research (1 page)

- Training plan for NIH ethics requirement (for example, if you plan to take or have taken the BBS ethics course requirement, outline the topics covered and how they were covered (texts read, exercises, etc.)).
- List other possible ethics courses, workshops, or mentorship from sponsors.
- For each opportunity, you must describe the: 1) format of instruction, 2) subject matter, 3) faculty participation, 4) duration of instruction, and 5) frequency of instruction.

Description of Candidate's Contribution to Program Goals (applicable to F31-Diversity)

- This letter, provided by your institution, is intended to certify how the candidate being funded by the program will "further the goals of the fellowship program to promote diversity in health-related research." This applies to individuals from underrepresented racial and ethnic groups, those with disabilities, and those from disadvantaged backgrounds. [This page (Notice of NIH's Interest in Diversity)](#) describes who falls into these categories, from the NIH's perspective.

Facilities & Other Resources

- Describe the scientific environment, especially what is unique
- Institutional support: animal care and use, trainee travel grants
- Physical resources
- Personnel resources: collaborators, collegiality

Resources Sharing Plan

- Yale has a standard Resources Sharing Plan (get this from your PI, advisor, or grants administrator). You can add to it with specifics of your work (e.g. any reagents or animals used, or data sets produced should be shared if they are unique to your study), but don't make your plan more restrictive than Yale's basic plan.

Equipment

- List (in outline form) the equipment available to you and where it is located
- Common lab facilities: list all *common* equipment including microscopes and data processing equipment
- Core facilities: histology, sequencing, flow cytometry, etc.

Vertebrate Animals

- Get this information from your sponsor. You should be covered under their protocols. Tailor to your grant.
- Address the following criteria: 1) Description of procedures, 2) Justifications, and 3) Minimization of Pain and Duress.

Human Subjects

- Get this information from your sponsor. You should be covered under their protocols. Tailor to your grant.

Select Agents

- Consult the NIH [list](#) of select agents and materials. Some [exclusions](#) may apply. For biohazards not included in this list, provide information about storage and handling in the research strategy.