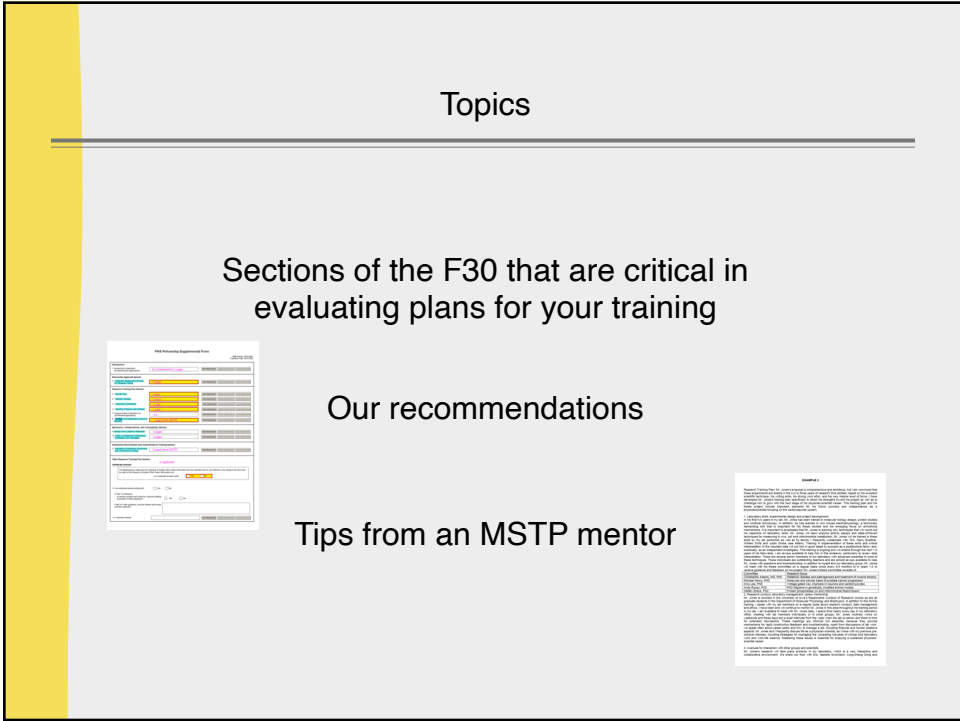


1



2

Relevant sections of the F30 *

- There is some variation in emphasis by:
 - Study section (study section culture)
 - Individual reviewer
- However, it's safe to say that:
 - The **proposed research** is important
 - The **training potential** is important
 - It is not a good idea to leave sections relevant to the training plan to the last minute
- Key sections for judging training potential
 - Applicant's Background and Goals
 - Sponsor/Co-Sponsor statements
 - Biosketch – especially personal statement!

...based on previous panel discussions

3

Section Requirements for Applicant, Sponsor & Co-Sponsor

PHS Fellowship Supplemental Form

OMB Number: 0925-0001
Expiration Date: 03/31/2020

1. Introduction to Application (for Resubmission applications)	for resubmissions [1 page]	Add Attachment	Delete Attachment	View Attachment
2. *Applicant's Background and Goals for Fellowship Training	2 pages	Add Attachment	Delete Attachment	View Attachment
Research Training Plan Section				
3. * Specific Aims	1 page	Add Attachment	Delete Attachment	View Attachment
4. * Research Strategy	4 pages	Add Attachment	Delete Attachment	View Attachment
5. * Respective Contributions	1 page	Add Attachment	Delete Attachment	View Attachment
6. * Selection of Sponsor and Institution	1 page	Add Attachment	Delete Attachment	View Attachment
7. Progress Report Publication List (for Renewal applications)	n/a	Add Attachment	Delete Attachment	View Attachment
8. * Training in the Responsible Conduct of Research	1 page (from MSTP)	Add Attachment	Delete Attachment	View Attachment
SPONSOR(S), COLLABORATOR(S), AND CONSULTANT(S) SECTION				
9. Sponsor and Co-Sponsor Statements	6 pages	Add Attachment	Delete Attachment	View Attachment
10. Letters of Support from Collaborators, Contributors, and Consultants	6 pages	Add Attachment	Delete Attachment	View Attachment
ENVIRONMENTAL ENVIRONMENTAL COMMITMENT TO TRAINING SECTION				
11. Description of Institutional Commitment and Commitment to Training	1 page (from MSTP)	Add Attachment	Delete Attachment	View Attachment
Other Research Training Plan Section				
Vertebrate Animals as applicable				
The following item is taken from the Research & Related Other Project Information form and repeated here for your reference. Any change to this item must be made on the Research & Related Other Project Information form.				
Are Vertebrate Animals Used? <input checked="" type="radio"/> Yes <input type="radio"/> No				
12. Are vertebrate animals euthanized? <input type="checkbox"/> Yes <input type="checkbox"/> No				
If "Yes" to euthanasia, is method consistent with American Veterinary Medical Association (AVMA) guidelines? <input type="checkbox"/> Yes <input type="checkbox"/> No				
If "No" to AVMA guidelines, describe method and provide scientific justification				
13. Vertebrate Animals				

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Section Requirements for Applicant, Sponsor & Co-Sponsor

PHS Fellowship Supplemental Form

OMB Number: 0924-0011
Expiration Date: 03/31/2020

1 Introduction to Application <small>(for Resubmission applications)</small>	<input type="text" value="for resubmissions (1 page)"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
Fellowship Applicant Section				
2 Applicant's Background and Goals for Fellowship Training	<input type="text" value="2 pages"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
Research Training Plan Section				
3 Specific Aims	<input type="text" value="1 page"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
4 Research Strategy	<input type="text" value="4 pages"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
5 Respective Contributions	<input type="text" value="1 page"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
6 Selection of Sponsor and Institution	<input type="text" value="2 pages"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
7 Progress Report Publication List <small>(for Renewal applications)</small>	<input type="text" value="N/A"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
8 Ability to be Responsible Conductor of Research	<input type="text" value="1 page (from MSTP)"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
Sponsor(s), Collaborator(s), and Consultant(s) Section				
9 Sponsor and Co-sponsor Statement	<input type="text" value="6 pages"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
10 Letters of Support from Collaborators, Contributors, and Consultants	<input type="text" value="6 pages"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
Institutional Environment and Commitment to Training Section				
11 Description of Institutional Environment and Commitment to Training	<input type="text" value="2 pages (from MSTP)"/>	<input type="button" value="Add Attachment"/>	<input type="button" value="Delete Attachment"/>	<input type="button" value="View Attachment"/>
Other Research Training Plan Section	<input type="text" value="as applicable"/>			
Vertebrate Animals	<i>as applicable</i>			
<p>The following item is taken from the Research & Related Other Project Information form and repeated here for your reference. Any change to this item must be made on the Research & Related Other Project Information form.</p> <p>Are Vertebrate Animals Used? <input type="button" value="Yes"/> <input type="button" value="No"/></p> <p>12. Are vertebrate animals euthanized? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "Yes" to euthanasia: Is method consistent with American Veterinary Medical Association (AVMA) guidelines? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "No" to AVMA guidelines, describe method and provide scientific justification: <input type="text"/></p> <p>13. Vertebrate Animals <input type="text"/></p>				

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NIH Instructions, for Applicant

2. Applicant's Background and Goals for Fellowship Training

Who must complete the "Applicant's Background and Goals for Fellowship Training" attachment:
The "Applicant's Background and Goals for Fellowship Training" attachment is required.

Format:
Follow the page limits for Applicant's Background and Goals for Fellowship Training in the [NIH Table of Page Limits](#) unless otherwise specified in the FOA.
Attach this information as a PDF file. See NIH's [Format Attachments](#) page.

Content:
Organize the Applicant's Background and Goals for Fellowship Training attachment in the specified order and use the instructions provided below unless otherwise specified in the FOA. Start each section with the appropriate heading - Doctoral Dissertation and Research Experience, Training Goals and Objectives, Activities Planned Under this Award.

A. Doctoral Dissertation and Research Experience:
Briefly summarize your past research experience, results, and conclusions, and describe how that experience relates to the proposed fellowship. In some cases, a proposed fellowship may build directly on previous research experiences, results, and conclusions. In other situations, past research experiences may lead a candidate to apply for a fellowship in a new or different area of research. Do not list academic courses in this section.

Applicants with no research experience: Describe any other scientific experiences.

Advanced graduate students (i.e., those who have or will have completed their comprehensive examinations by the time of award): Include a narrative of your planned doctoral dissertation (may be preliminary).

Postdoctoral fellowship applicants: Specify which areas of research were part of your predoctoral thesis or dissertation and which, if any, were part of a previous postdoctoral project.

B. Training Goals and Objectives:

- Describe your overall training goals for the duration of the fellowship and how the proposed fellowship will enable the attainment of these goals.
- Identify the skills, theories, conceptual approaches, etc. to be learned or enhanced during the award.
- Discuss how the proposed research will facilitate your transition to the next career stage, if applicable.

C. Activities Planned Under this Award:
The activities planned under this award should be individually tailored and well integrated with your research project.

- Describe, by year, the activities (research, coursework, professional development, clinical activities, etc.) you will be involved in during the proposed award. Estimate the percentage of time to be devoted to each activity. The percentage should total 100 for each year.
- Describe the research skills and techniques that you intend to learn during the award period.
- Describe the planned, non-research activities (e.g. those related to professional development and clinical activities) that you plan to engage in during the award period.
- Provide a timeline detailing the proposed research training and related activities for the entire duration of the fellowship award.

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Handbook, for Applicant

Fellowship Applicant Section			
2	Applicant's Background and Goals for Fellowship Training	1 page	Add Attachment Delete Attachment View Attachment
Research Training Plan Section			
3	Specific Aims	1 page	Add Attachment Delete Attachment View Attachment
4	Research Strategy	1 page	Add Attachment Delete Attachment View Attachment
5	Respective Contributions	1 page	Add Attachment Delete Attachment View Attachment
6	Selection of Sponsor and Institution	1 page	Add Attachment Delete Attachment View Attachment
7	Progress Report Publication List (for Renewal applications)	n/a	Add Attachment Delete Attachment View Attachment
8	Training in the Responsible Conduct of Research	1 page (from MSTP)	Add Attachment Delete Attachment View Attachment

- ITEM 2. APPLICANT'S BACKGROUND AND GOALS FOR FELLOWSHIP TRAINING** **limit = 6 pages**
- **Doctoral Dissertation & Research Experience**
 - describe, in chronological order, your previous research experience. You can include undergraduate and/or summer experiences, as well as MSTP rotations, in addition to any preliminary work you have done in your current lab
 - if you are **post-comps**, you need to include a narrative of your doctoral dissertation. If this proposal is describing your dissertation work, state as such
 - **Training Goals & Objectives**
 - see FOA-specific guidelines above
 - make sure this aligns with your previous research experience, selection of mentor/institution, current project, and award period timeline
 - How will your research facilitate your transition to your next career stage?
 - discuss use and maintenance of MSTP Individual Development Plan (IDP)
 - define any gaps in training; design metrics to meet goals
 - **Activities Planned Under this Award**
 - see FOA-specific guidelines above
 - describe activities (% time) for entire period of support, by year. Include skills to be obtained, techniques to be mastered, non-research activities, PhD Program requirements, and MD Program requirements along a **timeline**. **TIMELINE!!!**
 - consider using these sub-headings: (1) Didactic Activities, (2) Mentored Activities, (3) Career Development Activities
 - make sure this section aligns with your Training Goals & Objectives

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SERCC Template

GRANT WRITING TEMPLATE: A STARTING POINT FOR NIH FELLOWSHIP (F) APPLICATIONS

APPLICANT'S BACKGROUND AND GOALS FOR FELLOWSHIP TRAINING

Doctoral Dissertation and Research Experience Describe your previous research experience, mentors, and activities that led to your current position. In some cases, a proposal for a dissertation or previous research experience, thesis, and contributions to other students' past research experiences may lead a candidate to apply for a Fellowship in a new or different area of research. Do not list academic courses in this section.

Appropriate sections to consider including:

- High school internship
- Undergraduate honors project
- Undergraduate research experience
- Dissertation work

With discussion of:

- Scientific focus of the laboratory OR historical context for the work/activity
- The research performed and techniques/acquired (technical skills, data analysis)
- Outcomes: both scientific outcomes (if possible) and professional development (e.g., presentation skills, networking, introduction to a specific field)

Training Goals and Objectives Describe your overall career and training goals for the duration of the fellowship and how you plan to achieve them. Be specific about your goals. Identify the skills, theories, conceptual approaches, etc., to be learned or enhanced during the award, including specific in-person research design, experimental methods, quantitative approaches, and data analysis and interpretation, as applicable. Discuss how the proposed activities will address your training in the next career stage.

- FOA's: Focus should be on learning to think like a scientist (development, analysis, present work) with a clinical focus (MDs).
- F30's: Focus should be on specific goals and how your present training and sponsor will help you transition to an independent career.

Appropriate sections to consider including:

- Career and training goals
 - Describe what your career goals are and the training goals needed to achieve them.
- Sponsor
 - Describe how your sponsor will help you transition to an independent career (including laboratory management and training skills) and if placed on leave with applicant.
- Goals in training
 - Describe key skills, theories, conceptual approaches, etc., you need to achieve your goal, including expertise in rigorous research design, experimental methods, quantitative approaches, and data analysis and interpretation in applicable.
- Non-research activities
 - Describe professional development opportunities and/or clinical activities.
- Training environment
 - Describe departmental program (journal clubs, seminar series, meeting with speakers, hosting laboratories, networking, clinical exposure (if relevant)).

GRANT WRITING TEMPLATE: A STARTING POINT FOR NIH FELLOWSHIP (F) APPLICATIONS

Outcomes

- Design metrics of success in meeting your goals.

Future Directions

- Describe how the proposed research will facilitate your transition to the next career stage.
- Discuss arrangement with mentor regarding project (i.e., what components you can take it with you).

Activities Planned Under this Award: The activities planned under this award should be intellectually, technical and well-organized with your research project.

- Describe, by year, the activities research, coursework, professional development, clinical activities, and you will be involved in during the proposed award. Describe by percentage of time to be spent on each activity. The percentage should total 100% for each year (this is effectively presented in tabular format).
- Describe the research skills and techniques that you intend to learn during the award period.
- Provide a timeline detailing the proposed research training, professional development, and clinical activities for the duration of the fellowship award. Detailed reviews of research activities involving general, basic, industry, or clinical work are required in other sections of the fellowship application and should not be included here. The timeline you provide should be aligned with the Study Timeline in the PhD Program Guidelines and Clinical Training Information form (see F30 application). It can be useful for the timeline to span the entire training period (e.g., master's and graduate studies).

Appropriate sections to consider including:

- Research
 - Technical skills to be acquired (i.e., specific techniques and who will provide training).
- Coursework
 - Scientific writing and presentation
 - Responsible conduct of research (RCR)
- Professional Development
 - Plan writing manuscripts and grants
 - Local presentations (laboratory meetings, departmental/inter-departmental seminars)
 - Presentations at national/international meetings
 - Mentor-facilitated networking at conferences
 - Meeting with collaborators and other scientists visiting the institution
- Clinical activities (if applicable)
 - Clinical rotations/externships
 - Residency requirements
- Interaction with mentors/trainers/training committee
 - Individuals who will provide mentoring
 - Transition/transfer of meetings
 - Science hypotheses, experimental design, data analysis/interpretation
 - Lab equipment/training, lecture notes
 - Work-life balance, stress/health balance
 - Career development/ future career plans
- Research environment
 - Laboratory in which research will be performed and personnel who can contribute to training their sites (and yourself)
 - Laboratory meetings, seminars, journal clubs, regional meetings
- Teaching and mentoring activities
 - Formal teaching/mentorships
 - Mentoring undergraduates in the laboratory

<https://medicine.uiowa.edu/sercc/resources/writing-grants>

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NIH Instructions, for Sponsor & Co-Sponsor

9. Sponsor and Co-Sponsor Statements

Who must complete the "Sponsor and Co-Sponsor Statement" attachment:
The "Sponsor and Co-Sponsor Statement" attachment is required. The sponsor and each co-sponsor must provide statements as described below.

Format:
Follow the page limits for Sponsor and Co-Sponsor Statements in the [NIH Table of Page Limits](#) unless otherwise specified otherwise in the FOA.
The Sponsor and Co-Sponsor Statements must be appended together and uploaded as a single PDF file. See NIH's [Format Attachments](#) page.

Content:
Complete these items as comprehensively as possible so that a meaningful evaluation of the training environment can be made by the reviewers.
Create a heading at the top of the first page titled "Sponsor and Co-Sponsor Statements." Organize each statement in the specified order and use the instructions below, unless otherwise specified in the FOA. Start each section with the appropriate section heading – Research Support Available; Sponsor/Co-Sponsor's Previous Fellows/Trainees; Training Plan, Environment, Research Facilities; Number of Fellows/Trainees to be Supervised During the Fellowship; and Applicant's Qualifications and Potential for a Research Career.
Each sponsor and co-sponsor statement must address all of the following sections (A-E).

A. Research Support Available
In a table, list all current and pending research and research training support specifically available to the applicant for this particular training experience. Include funding source, complete identifying number, title of the research or training program, name of the FDCPI, start and end dates, and the amount of the award. If the sponsor's research support will end prior to the end of the proposed training period, the sponsor should describe a contingency plan for how the fellow's research will be supported.

The role of the sponsor/co-sponsor in the Research Training Plan should be described. If one or more co-sponsors is proposed, this plan should describe the role of each sponsor and how they will communicate and coordinate their efforts to mentor the applicant effectively.

B. Sponsor's/Co-Sponsor's Previous Fellows/Trainees
State the total number of predoctoral and postdoctoral individuals previously sponsored. Select up to five that are representative, and for those five, provide information on their time spent in the lab, their present employing organizations, and their present position titles or occupations.

C. Training Plan, Environment, Research Facilities
The applicant's Research Training Plan should be individualized for the applicant, keeping in mind the candidate's strengths and any gaps in needed skills. The Research Training Plan should be designed to enhance both research and clinical training (if applicable).
Describe the Research Training Plan that you have developed specifically for the fellowship applicant. Be sure to include the following points:

- Include items such as classes, seminars, opportunities for interaction with other groups and scientists, and any professional skills development opportunities.
- Describe the research environment and available research facilities and equipment.
- Indicate the relationship of the proposed research training to the applicant's career goals.
- Describe the skills and techniques that the applicant will learn. Relate these to the applicant's career goals.

The information contained in the "Training Plan, Environment, Research Facilities" section of the Sponsor's and Co-sponsors' Statements should be coordinated with information provided under the [Description of Institutional Environment and Commitment to Training](#) attachment below.

F30 Applications: The Research Training Plan should provide opportunities to integrate clinical experiences during the research training component; a plan for a smooth transition to the clinical training component; and should have the potential to facilitate the applicant's transition to a residency or other program appropriate for his/her career goals. Sponsors and co-sponsors should discuss these clinical aspects of the applicant's training as well.

F31, F32, F33 Applications: The Research Training Plan should facilitate the applicant's transition to the next stage of his/her career. Sponsors and co-sponsors should discuss this aspect of the Research Training Plan as well.

D. Number of Fellows/Trainees to be Supervised During the Fellowship
Indicate how many pre- and/or post- doctoral fellows/trainees the Sponsor/Co-sponsor is expected to supervise during the award period. Co-sponsor statements must also include this information.

E. Applicant's Qualifications and Potential for a Research Career
Describe how the fellowship applicant is suited for this research training opportunity based on his/her academic record and research experience level. Include information about how the Research Training Plan, and your own expertise is appropriate to guide the applicant in any proposed clinical trials research experience.

Note for sponsors of fellowship applicants who are proposing to gain clinical trial research experience under a sponsor's supervision (i.e., but will not be leading an independent clinical trial): In addition to the information above, your statement must include the following:

- Source of funding;
- ClinicalTrials.gov identifier (e.g., NCT87654321), if applicable; and
- A description of how your expertise is appropriate to guide the applicant in any proposed clinical trials research experience.

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Handbook, for Sponsor & Co-Sponsor

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

5 Sponsor and Co-Sponsor Statements

10 Letters of Support from Collaborators, Consultants, and Consultants

ITEM 9. SPONSOR AND CO-SPONSOR STATEMENTS **limit = 6 pages**

FROM F30 FOA (RELEVANT TO F31-D)
Eligibility: Sponsor Before submitting the application, the applicant must identify a sponsor(s) who will supervise the proposed integrated, mentored training experience. The primary sponsor should be an active investigator in the area of the proposed research training and be committed both to the applicant's research training and to direct supervision of his/her research. The sponsor must document the availability of **sufficient research funds and facilities** for high-quality research training. The sponsor, or a member of the sponsor team, should have a **successful track record of mentoring dual-degree students**. Applicants are encouraged to identify more than one sponsor, i.e., a sponsor team. If this is deemed advantageous for providing expert advice in all aspects of the integrated research and clinical training program. A clinical training sponsor, in an area of clinical interest to the applicant, may also be appropriate. When there is a sponsor team, one individual must be identified as a primary sponsor, and will be expected to coordinate the applicant's overall integrated training. The applicant must work with the sponsor(s) in preparing the application.

- The page limit includes ALL sponsors/co-sponsors
- **Heading:** "Sponsor and Co-Sponsor Statements"
- this section is to be completed by your mentor (and official co-mentors, if applicable), and your advisor may never have completed such a section before, so be kind and give them **plenty** of advanced warning about this section. Remember, this is a **TRAINING** fellowship application. (you may draft it from mentor's perspective)
- this section is used to illustrate the mentoring process of your mentor(s), to give an idea of how many people they are currently mentoring (i.e., how much time will be devoted to YOUR training), and to show your mentor(s) have funding to support the research during your award. If there are any **perceived** weaknesses, you should add a Co-Sponsor to support that area.
- it is very important for your advisor's descriptions to align with and support your training plan. Therefore, you may want to give your mentor(s) a copy of your training plan **one month before** your submission date (or earlier if your advisor is busy or traveling).
- **GIVE TO MENTOR(S):** Biosketch + "Applicant...Training" section + these instructions
- **Research Support Available** for EACH (Co)Sponsor
 - o PURPOSE: Will there be mentor support (Who? When?) and money to fund your project for the entire proposed period?
 - o table of current & pending grants; contingency plan if ending soon
 - o description of EACH Sponsor/Co-Sponsor role in Applicant's training plan
- **Sponsor's/Co-Sponsor's Previous Fellows/Trainees** for EACH (Co)Sponsor (5 representatives)
 - o PURPOSE: Is there an experienced mentor guiding the applicant's development?
- **Training Plan, Environment, Research Facilities** integrated among (Co)Sponsors
 - o PURPOSE: Will the training uniquely address the applicant's strengths, weaknesses, and career goals? Will meaningful research be accomplished? HOW?
 - o MUST be tailored specifically to applicant and reflect applicant's Training Plan sections
 - o how will medical and research training be integrated? are transitions smooth? can reference MSTP document (Description of Institutional Environment & Commitment to Training)
- **Number of Fellows/Trainees to be Supervised During the Fellowship** for EACH (Co)Sponsor
 - o PURPOSE: How much time will the (co)sponsors spend directly mentoring the applicant?
- **Applicant's Qualifications and Potential for a Research Career** integrated among (Co)Sponsors
 - o PURPOSE: This serves as the mentor(s)'s recommendation of the applicant as a future independent scientist.
 - o [remember: (co)sponsors cannot submit letters of recommendation]

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Page limits:

Page Limits

Follow the page limits specified below for the attachments in your grant application, unless otherwise specified in the funding opportunity announcement (FOA). FOA instructions always supersede general application guide instructions. Therefore, be sure to check the FOA for any exceptions. If no page limit is listed in the table below or in Section III of the FOA, under Page Limitations, you can assume the attachment does not have a limit.

Standard page limits are organized by Activity Code:

- Fellowship (F) Applications
- Individual Career Development Award (K, excluding K12) Applications
- Institutional Training (T), International Training (X), D1, U2R, Institutional Career Awards (K12, K12), and Research Education (R25, R3B, DP) Applications
- R01, R03, R21, and all other Applications

For all Fellowship (F) Applications

Section of Application	Page Limits * (if different from FOA, FOA supersedes)
Project Summary/Abstract	30 lines of text
Project Narrative	Three sentences
Introduction to Resubmission or Revision Application (when applicable)	1
Applicant's Background and Goals for Fellowship Training	6
Specific Aims	1
Research Strategy	6
Respective Contributions	1
Selection of Sponsor and Institution	1
Training in the Responsible Conduct of Research	1
Sponsor and Co-Sponsor Statements	6
Letters of Support from Collaborators, Contributors, and Consultants	6
Description of Institutional Environment and Commitment to Training	2
Note: This page limit includes the Additional Educational Information required for F20 and F31 applications.	
Applications for Concurrent Support (when applicable)	1
Biographical Sketch	5

<https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/page-limits.htm>

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Scored Review Criteria for Fellowship Applications:

- *Fellowship Applicant*
- *Sponsors, Collaborators, and Consultants*
- *Research Training Plan*
- *Training Potential*
- *Institutional Environment & Commitment to Training*

=> Add up to **OVERALL IMPACT SCORE**

Applicant and sponsor sections are relevant to evaluation of:

- Applicant
- Training portion of Research Training Plan
- Training potential

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Scored Review Criteria for Fellowship Applications:

- *Fellowship Applicant*
 - Are the applicant's ... of high quality?
 - academic record
 - research experience
 - Are the applicant's interests consistent with a career as a:
 - physician-scientist?
 - other clinician-scientist?
 - Does the applicant have the potential to develop into an independent, productive contributor to biomedical, behavioral or clinical science as a:
 - physician-scientist?
 - other clinician-scientist?
 - Does the applicant demonstrate commitment to a career as a:
 - physician-scientist?
 - other clinician-scientist?

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Scored Review Criteria for Fellowship Applications:

- *Research Training Plan*
 - Is the proposed **research plan** of high scientific quality, and
 - well integrated with the proposed research training plan?
 - Based on the **sponsor's description** of his/her active research program, is the applicant's proposed research project
 - sufficiently distinct from the **sponsor's funded** research for the applicant's career stage?
 - Is the proposed time frame
 - feasible to accomplish the proposed research and clinical training?
 - Is the research project consistent with the
 - applicant's stage of research development?
 - Is the **training plan**
 - well-reasoned?
 - likely to provide an effective, integrated research and clinical training experience?
 - ease the transitions between the phases of the dual-degree program?
 - If proposed, will the **clinical trial experience** contribute to the
 - proposed project?
 - applicant's research training?

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Scored Review Criteria for Fellowship Applications:

- **Training Potential**
 - Are the proposed research project and research and clinical **training plan** likely to provide the applicant with
 - an integrated perspective?
 - appropriate skills for a physician-scientist or other clinician-scientist?
 - Does the **training plan**
 - take advantage of the applicant's strength?
 - address gaps in needed skills?
 - document a clear need for, and value of, the proposed training?
 - Does the **proposed training** have the potential to serve as a
 - sound foundation that will clearly enhance the applicant's ability to develop into a productive researcher?
 - If applicable to the dual-degree program, are appropriate opportunities for ... available to applicant?
 - electives?
 - early and longitudinal clinical experiences?
 - other enhanced clinical training?
 - Are appropriate opportunities available to
 - ease the transition to clinical clerkships?
 - for research electives during clinical training?

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Handbook: what works and what does not

F30 REVIEW THEMES

FOA PA-14-150 Submissions: 12/08/14 – 4/08/16 Reviews: 15 Scores: 13-50 + nd
FOA PA-16-300 Submissions: 08/08/16 – Reviews: 3 Scores: 17 + nd

A compilation of recent F30 Review Statements from NCI, NEI, NHLBI, NIA, NIAID, NEHS, NIGMS & NIMH proposals.
(Verbiage from FOA Review Criteria)

Overall Impact/Merit
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, an independent scientific research career in a health-related field, in consideration of the scored and additional review criteria.

Fellowship Applicant

- Are the applicant's academic record and research experience of high quality?
- Are the applicant's interests consistent with a career as a physician-scientist or other clinician-scientist?
- Does the applicant have the potential to develop into an independent and productive contributor to biomedical, behavioral or clinical science as a physician-scientist or other clinician-scientist?
- Does the applicant demonstrate commitment to a career as a physician-scientist or other clinician-scientist?
- Strong publication record (1st author and several collaborations) [ex: 0 pubs by 3rd year is viewed poorly]
- Glowing letters of recommendation => motivation, intellect, research/writing abilities, independence, critical thinking, work ethic
- Demonstrate that a fellowship will have a high impact on the future career
- Clearly state career goals AND the role research will play in future career goals
- Limited PhD training potential when staying in same lab as MS (BUT publication record & preliminary data)
- Undergrad GPA
- Med School grades (Honors)
- MCAT scores and Step 1 scores (scores no longer required to be reported)
- Need details of exact technical/scientific/clinical learning experiences
- Emphasize completion of comprehensive exam

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Handbook: what works and what does not

Research Training Plan

- Is the proposed research project of high scientific quality, and is it well integrated with the proposed research training plan?
- Based on the sponsor's description of his/her active research program, is the applicant's proposed research project sufficiently distinct from the sponsor's funded research for the applicant's career stage?
- Is the research project consistent with the applicant's stage of research development?
- Is the training plan well-reasoned, and likely to provide an effective, integrated research and clinical training experience and ease the transitions between the phases of the dual-degree program?
- Is the proposed time frame feasible to accomplish the proposed research and clinical training?
 - Well-written and organized
 - Clear justification for the proposed experiments
 - Innovative and clinically-relevant
 - Consider potential problems in a thoughtful way -> provide expected results and alternatives
 - Training potential -> will experiments provide solid foundation in [translational] research?
 - If including animal breeding, consider feasibility within scope of F30
 - Note: Preliminary data is NOT required, but if included, clarify what (if any) was YOUR work
 - Preliminary data to show feasibility => of experiment, of model, OR of collaboration (group papers, etc)
 - Evidence of applicant critically reviewing preliminary data
 - Concerns about over-ambitious plans can be alleviated by proof of high productivity (prelim data; papers)

Training Potential

- Are the proposed research project and research and clinical training plan likely to provide the applicant with an integrated perspective and appropriate skills for a physician scientist or other clinician-scientist?
 - Does the training plan take advantage of the applicant's strengths and address gaps in needed skills? Does the training plan document a clear need for, and value of, the proposed training?
 - If applicable to the dual-degree program, are appropriate opportunities for electives, early and longitudinal clinical experiences, or other enhanced clinical training available to the applicant? Are appropriate opportunities available to ease the transition to clinical clerkships and for research electives during clinical training?
 - Does the proposed integrated research and clinical training have the potential to serve as a sound foundation that will clearly enhance the applicant's ability to develop into a productive, independent physician-scientist or other clinician-scientist?
 - Quality of applicant and attention to detail in the training plan suggest high potential
 - Weaknesses (experimental) in the Research Training Plan can dampen enthusiasm for training potential
 - Approaches are sophisticated and take advantage of latest advances
 - Training plan is *genuinely* tailored to the applicant -> aligned with career goals; integrate MD and PhD
 - Emphasize areas of training programs over which applicant has control
 - Build on applicant's strengths and weaknesses
 - If applicant exposed to new research skills in addition to career development?
 - Attention to on-going career development and transition back to clinic
 - Learn diverse scientific/technical skills, even via intra/inter-institutional collaborations
 - Clinical Connections helps students maintain clinical exposure during graduate phase
 - 8 weeks of clerkships before graduate phase provides important clinical component to research training
 - State specific techniques to be learned in the dual-section
 - Applicant should receive reasonable personal attention from the mentor
 - Include time for meetings, seminars, writing (in all stages/levels final medical year)
 - Include information on training of a specific necessary technique (molecular biology? biostatistics? physics?)
 - MD/PhD training potential can be strengthened by emphasizing how research can yield clinical relevance

From Iowa-F30 Handbook copy (by Ashley and available on Dropbox)

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Topics

Sections of the F30 that are critical in evaluating plans for your training



Our recommendations

Tips from an MSTP mentor



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Our Recommendations...

What general things do you need to know about writing these critical sections of your grant?

- You and mentor need to identify: *And be consistent in describing...*
 - where you are now
 - where you need to be when you have completed your fellowship
- This section should must be *individualized to meet your needs*.
 - Suppose you need to be able to use a certain methodology but only got a C in the relevant course.
 - What do you propose to do to attain the necessary competence level?
 - When in your training do you need to have completed this?
 - Do you have other weaknesses?
 - How will you and your sponsor address them?

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Recommendations...

An individualized training plan allows reviewers to assess whether you will be able to meet your stated goals, so:

- Honestly identify potential problems
- Give potential solutions
- Set a standard of performance
- Devise a means to assess performance
- Describe a process for monitoring performance (e.g. benchmarks)

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Recommendations...

Address logistics:

- How often will you meet with your sponsor?
- How often will you meet *individually* with your sponsor?
- What will you and your sponsor plan to do at these meetings?
- How will the sponsor offer you direction?
 - It is up to the sponsor to make sure you will have sufficient consultation time to obtain necessary direction.
 - Your sponsor should detail logistics of how s/he will do that.

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Tips from an MSTP mentor...

Key goals of your training that should be apparent in Training Plan:

1. Develop the ability to formulate a testable hypothesis
2. Develop the ability to design appropriate experiments
3. Develop skills in critical thinking (interpreting data)
4. Develop strong skills in conceptualization (literature → experiments)
5. Develop writing skills
6. Develop presentation skills (ability to answer questions on feet)
7. Develop networks (team science)
8. Develop technical skills (find your strengths and build on them)
9. Model established scientist physicians and/or clinical scientists

Donna Hammond

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Key goals of your training

- Develop the ability to formulate a testable hypothesis
 - Know where ideas in proposal came from
 - Give regular presentations to peers
 - List proposal writing as part of training

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Key goals of your training

- Develop skills in critical thinking (interpreting data)
and
- Develop strong skills in conceptualization (going from literature to experiments)
 - Participate in journal clubs and/or discussion with mentor
 - Learn to judge strengths and weaknesses of a paper
 - Learn to judge why a paper was published in a particular journal
 - Learn to judge what was added because of reviewer request

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Key goals of your training

- Model established scientist physicians and/or clinical scientists, i.e., if your mentor has no clinical background:
 - Include one or more on your thesis committee
 - Establish a rapport with one in the “lab next door”
 - Meet with ones who are guest speakers

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Training Plan

Double check that training plan touches on:

- Quality of applicant
- Training plan
- The science

Other tips:

- Send SA page in ahead of time to program officer —
Would they consider the F30?
- Within the grant, after each set of experiments —
State how they will fulfill the training goals

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Topics

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