**Template guidelines:** For your grant application, the SERCC strongly recommends using the words that are in bold below as section headers. Instructions from the NIH SF424 are in grey text with additional SERCC comments in blue text.

**Applicant’s Background and Goals for Fellowship Training**

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| **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 will 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 prior 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 your proposed research were part of your predoctoral thesis or dissertation, and which, if any, were part of a previous postdoctoral project.*

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/study
* The research performed and techniques/skills acquired (technical skills, data analysis)
* Outcomes: both scientific advances (if possible) and professional development (e.g., presentation skills, networking, introduction to a specific field)
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| **Training Goals and Objectives:** *Describe your overall career and 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, including expertise in rigorous research design, experimental methods, quantitative approaches, and data analysis and interpretation, as applicable.* *Discuss how the proposed research will facilitate your transition to the next career stage.* * **F30/31: Focus should be on learning to think like a scientist (develop, analyze, present work) with a clinical focus for F30s.**
* **F32s: 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 these.
	+ Be honest and as specific as possible
* Sponsor
	+ Describe their field and how this fits with your goals
	+ (F32) Discuss how your sponsor will help you transition to an independent career (including laboratory management and mentoring skills) and if project can move with applicant.
* Gaps in training
	+ Describe what skills, theories, conceptual approaches, etc., are needed to achieve your goal, including expertise in rigorous research design, experimental methods, quantitative approaches, and data analysis and interpretation, as applicable.
* Non-research activities
	+ Discuss professional development opportunities and/or clinical activities.
* Training environment
	+ Describe departmental program: journal clubs, seminar series, meeting with speakers, fostering collaborations, networking, clinical exposure (if relevant).
* Outcomes
	+ Design metrics of success in meeting your goals.
* Future Directions:
	+ Discuss how the proposed research will facilitate your transition to the next career stage.
	+ (F32s) Discuss arrangement with mentor regarding project (i.e., what components you can take it with you).
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| **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* ***(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 timelines of research activities involving animals, human subjects, or clinical trials are requested in other sections of the fellowship application and should not be included here. The timeline you provide here should be distinct from the Study Timeline in the PHS Human Subjects and Clinical Trials Information form.* ***(For F30 applicants, it can be useful for the timeline to span the entire training period (e.g., medical 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 (R&R)
* Professional Development
	+ Plans for writing manuscripts and grants
	+ Local presentations (laboratory meetings, departmental/interest group seminars)
	+ Presentations at national/international meetings
	+ Mentor-facilitated networking at conferences
	+ Meetings with collaborators and other scientists visiting the institution
* Clinical activities *(if applicable)*
	+ Clinical shadowing/clerkships
	+ Volunteer experiences
* Interaction with mentors/co-mentors/mentoring committee
	+ Individual(s) who will provide mentoring
	+ Time/date/frequency of meetings
	+ Focus of meetings:
		- Science: hypotheses, experimental design, data analysis/interpretation
		- Lab management: finance, human relations
		- Work/life balance, clinic/research balance
		- Career development: future career plans
* Research environment
	+ Laboratory in which research will be performed and personnel who can contribute to training (their roles and expertise)
	+ Laboratory meetings, seminars, journal clubs, regional meetings
* Teaching and mentoring activities
	+ Formal teaching assistantships
	+ Mentoring undergraduates in the laboratory

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| **Activities planned under the award** (*Example)* |
| **Specific Aims** | **Year 1** | **Year 2** | **Year 3** | **Year 4** |
| **Specific Aim 1** |  |  |  |  |
| **Specific Aim 2** |  |  |  |  |
| **Physician-Scientist Training / Independent-Investigator Training** |
| **Manuscript preparation** |  |  |  |  |
| **Presentations at national/local meetings** |  |  |  |  |
| **Teaching and mentoring** |  |  |  |  |
| **Clinical exposure/experience** |  |  |  |  |

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*In the instructions to the standard F30 (*[*PA-21-049*](https://grants.nih.gov/grants/guide/pa-files/PA-21-049.html)*), F31 (*[*PA-21-051*](https://grants.nih.gov/grants/guide/pa-files/PA-21-051.html)*), and F32 (*[*PA-21-048*](https://grants.nih.gov/grants/guide/pa-files/PA-21-048.html)*) reviewers are asked to evaluate the following questions in assessing the training potential of the applicant. Note, only questions relevant to the training plan are included here; additional questions relevant for other sections of the proposal may exist.*

Criteria under Fellowship Applicant

* Are the candidate's academic record and research experience of high quality?
* Does the candidate have the potential to develop into an independent and productive researcher?
* Does the candidate demonstrate commitment to a research career in the future?

Criteria under Research Training Plan

* Is the proposed research project of high scientific quality, and is it well integrated with the proposed research training plan?
* Is the proposed time frame feasible to accomplish the proposed training?
* Is the training plan well-reasoned, and likely to provide an effective, integrated research and clinical training experience and ease the transitions between phases of the dual-degree program?
* Does the training plan provide adequate opportunities to present and publish research findings and meet with scientists in the community at national meetings as the work progresses?
* Will the training plan provide the professional skills needed for the candidate to transition to the next stage of his/her research career?
* If proposed, will the clinical trial experience contribute to the proposed project and/or the candidate’s research training?

Criteria Under Training Potential criteria

* Are the proposed research project and 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?
* 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?
* 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?

Criteria under Institutional Environment & Commitment to Training:

* Are the research facilities, resources (e.g., equipment, laboratory space, computer time, subject populations, clinical training settings) and training opportunities (e.g., seminars, workshops, professional development opportunities) adequate and appropriate?
* Is this institutional environment for the candidate’s scientific development of high quality?
* Are the facilities and resources appropriate to provide exposure to a research-oriented, clinical environment?
* Does the environment include individuals with similar training who will serve as role models for the candidate?
* Given the integrated nature of the training program, will appropriate advising be available to the candidate as he/she transitions between the research and clinical components of the integrated training program and to the next career stage?
* Is there appropriate institutional commitment to fostering the candidate’s mentored training?
* Is there appropriate institutional commitment to fostering the candidate’s integrated training as a physician-scientist or other clinician-scientist [or mentored training (F31/F32)]? Does this commitment extend to support the candidate’s research and training, if needed, for the duration of the proposed award?
* Does the institutional and/or lab environment provide appropriate and sufficient opportunities for the candidate to gain the professional skills needed for a successful research career?