

## **Fellowships for Graduate Students**

Anatomy and Structural Biology Graduate Students are highly encouraged to apply for fellowships, especially F31 awards from the *National Institutes of Health (NIH)*. Getting an F31 award will provide awardees with experience in grant writing, an extremely valuable addition to a CV and also funds for travel and supplies. Note: *Qualifying Examination* proposals can serve as the foundation of an F31 application. Students are highly encouraged to develop successfully defended *Qualifying Examination* proposals into F31 applications.

Visit this webpage: <https://researchtraining.nih.gov/programs/fellowships/F31#Due%20Dates>

## **Non-Federal Fellowships Links and Due Dates**

There are several additional fellowships available for citizens and non-US citizens. For a current listing of fellowships available, please visit this webpage: <https://www.einstein.yu.edu/admin/grantsupport/GraduateFundingSources.aspx>

## **How to prepare an F31 Fellowship** (with guidelines from the NIH website and the Dominick P. Purpura Dept. of Neuroscience)

### ***Specific Aims: (1 page)***

State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. No defined number of aims is required; though most projects propose 2-3 Specific Aims. Succinctly state the objectives of the research proposed, i.e., test a hypothesis, solve a specific problem, challenge a model, address a barrier to progress in the field or develop new technology.

### ***Research Strategy: (6 pages)***

Start each section of the Research Strategy with an appropriate section heading – **Significance** and **Approach**. Cite published experimental details in the **Research Strategy** section and provide the full reference in a References Cited section at the end. While there is no page limitation for bibliography, it is important to be concise and to select only those literature references pertinent to the proposed research.

#### ***(a) Significance***

Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. 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.

#### ***(b) Approach***

Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims. Preliminary data can be an essential part of a research grant application and help to establish the feasibility of the proposed project. Preliminary data collected by the student is effective to convince reviewers a project is feasible but data from the laboratory may also be useful. However, due to the early stage of the proposal, less emphasis will be placed on the preliminary data.

## **Personal Information (2 pages)**

A key item in NIH fellowship applications is the personal statement, where applicants indicate their contribution to the project and provide information about their interests and career plans. Although it will not be considered in the evaluation, Neuroscience students are required to submit this document along with specific aims and research strategy.

#### ***(a) Personal Statement***

Briefly describe how your experience, interests and qualifications make you particularly well-suited for your role in the project.

#### ***(b) Respective contributions***

Describe the collaborative process between you and your sponsor/co-sponsor in the development, review, and editing

of this research training plan. Discuss the respective roles in accomplishing the proposed research.

**(c) Goals for Fellowship Training and Career (1 page)**

Discuss how the proposed research project and activities enhance the applicant's development and relate to the applicant's career goals as a productive, independent research scientist. Discuss how the proposed research training plan will enhance his/her knowledge and technical and professional skills, and facilitate his/her transition to the next career stage.

**Resource Sharing Plan**

For examples, visit: <https://www.einstein.yu.edu/administration/grant-support/resource-sharing.aspx>

**Responsible Conduct of Research (1 page)**

All applications must include a plan to fulfill NIH requirements for instruction in the Responsible Conduct of Research (RCR). The plan must address the five, required instructional components outlined in the NIH policy: 1) *Format* - 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); 2) *Subject Matter* - the breadth of subject matter, e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, research ethics; 3) *Faculty Participation* - the role of the mentor(s) and other faculty involvement in the instruction; 4) *Duration of Instruction* - the total number of contact hours of instruction; and 5) *Frequency of Instruction* – instruction must occur during each career stage and at least once every four years. Document any prior instruction during the applicant's current career stage, including the inclusive dates instruction was last completed. Applications lacking a Plan for Instruction in the Responsible Conduct of Research will not be reviewed.

*A description of Responsible Conduct of Research, suitable for this section.* can be requested, well in advance of the deadline, from the [TGIFoffice@einstein.yu.edu](mailto:TGIffice@einstein.yu.edu).

**Additional Information**

**Activities Planned Under This Award (1 page)**

The applicant's research training plan, i.e. the activities planned under this award, should be individually tailored and well integrated with his/her research project. Describe the skills and techniques that the applicant intends to learn as well as any planned, non-research activities (e.g. those relating to professional development) during the award period. The applicant should provide a timeline for the proposed research training and related activities.

**Doctoral Dissertation and Other Research Experience (2 pages)**

All instructions in the SF424 (R&R) Individual Fellowship Application Guide must be followed.

**Sponsor and Co-Sponsor Information (6 pages)**

The F31 fellowship supports a program of mentored research training from outstanding faculty sponsors. The sponsor(s) should describe their current research support and how this support relates to the applicant's proposed research project. A contingency plan should be provided that describes how the applicant's research training will be supported should there be a gap in the sponsor's funding during the proposed award period. The role of the sponsor in the integrated research and training plan should be described. If a team of 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.

The training plan should be individualized for the applicant, keeping in mind the applicant's strengths and any gaps in needed skills, and should be designed to enhance research training. The training plan should be coordinated with the applicant's Research Strategy. The training plan should outline and justify new training opportunities, any relevant coursework, and professional development activities. Training in professional development skills, e.g. grant-writing and presentation skills, is strongly encouraged. The training plan should have the potential to facilitate the applicant's transition to the next stage of his/her career.

The research environment and the availability and quality of needed research facilities and research resources (e.g., equipment, laboratory space, computing resources, subject populations) should be described. The sponsor and any co-sponsors are expected to provide an assessment of the applicant's qualifications and potential for a career as a

productive, independent researcher.

### **Other Attachments**

*The following additional educational information is required and should be attached under Other Attachments:*

Describe the graduate program in which the applicant is enrolled, e.g. the structure of the program, required milestones and their usual timing (number of courses, any teaching commitments, qualifying exams, etc.), and the average time to degree over the past 10 years. Describe the progress/status of the F31 applicant in relation to the program's time line. Describe the frequency and method by which the program formally monitors and evaluates a student's progress. This information is **available from the Graduate Office. Please email: [TGIffoffice@einstein.yu.edu](mailto:TGIffoffice@einstein.yu.edu) for these materials.** Include the name of the individual providing this information at the end of the description.

Note that scores for standardized exams (e.g., MCAT, GRE) as well as a listing of the applicant's courses and grades must be included in the Fellowship Applicant Biographical Sketch, and NOT in this attachment.

Please name this attachment "**Additional Educational Information.**"

### **Biographical Sketch (up to 5 pages)**

#### **Letters of Reference**

Applicants must carefully follow the SF424 (R&R) Individual Fellowship Application Guide. **Letters are due by the application due date as described in the Notice.** *It is important to note that neither the sponsor nor any co-sponsor of this application can be counted as a confidential reference. The sponsor/cosponsor's recommendation is included as part of the application.* Applications lacking the appropriate required reference letters will not be reviewed. This is a separate process from submitting an application electronically. Reference letters are submitted directly through the eRA Commons Submit Reference Letter link and not through Grants.gov.

**Fonts and formatting:** Use Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. Type density, including characters and spaces, must be no more than 15 characters per inch. Type may be no more than six lines per inch. Use standard paper size (8 ½" x 11). Use at least one-half inch margins (top, bottom, left, and right) for all pages. Use a single-column format for the text.

#### **Additional Information**

<https://www.einstein.yu.edu/administration/grant-support/nih-information/>

<https://www.nigms.nih.gov/Training/IndivPredoc/Pages/default.aspx>

For any questions or concerns regarding your grants, please contact:

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