

# Medical Research Fellows Program

## Program Information

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**Application Deadline**  
January 11, 2012

**Announcement of Awards**  
March 2012

**HHMI**  
HOWARD HUGHES MEDICAL INSTITUTE

**Department of Science Education**

# Medical Research Fellows Program

The goal of the HHMI Medical Research Fellows Program (“Med Fellows Program”) is to strengthen and expand the nation’s pool of medically trained researchers. The fellowships provide funds to support fellows and meet their research- and education-related expenses. HHMI awards the fellowships through an annual competition.

The fellowship provides support for one year of full-time research training in fundamental biomedical research. It includes a stipend, a research allowance for enrichment activities that directly benefit the fellow and for some of the fellow’s research-related expenses, and a fellow’s allowance to be used for health care and education-related expenses incurred as part of the fellowship. Fellowship research must be conducted at an academic or nonprofit research institution in the United States, excluding the National Institutes of Health (NIH) in Bethesda, Maryland, and may be conducted abroad if the mentor is affiliated with an academic institution or non-profit organization in the U.S.

In 2012, HHMI plans to award up to 66 fellowships to medical, dental, and veterinary students who show the greatest promise for future achievement in biomedical research and who have demonstrated superior scholarship as undergraduates and during their initial medical, dental, or veterinary school training.

To ensure continued excellence and diversity among applicants and awardees, HHMI welcomes applications from all qualified students and specifically encourages applications

from women and members of minority groups underrepresented in the sciences.<sup>1</sup>

**Partnership Initiatives.** Some fellows may be funded by partnership initiatives with HHMI whereby another organization has entered into an agreement with HHMI to fund a number of fellows in a certain research area (e.g., with the Burroughs Wellcome Fund “BWF” for veterinary students, with the Foundation Fighting Blindness “FFB” for ophthalmology research, particularly in the area of inherited retinal degenerative diseases, with the GM Trust “GMT” for a student researcher in a field related to Duchenne Muscular Dystrophy [DMD], and with the Society of Interventional Radiology Foundation “SIRF” for preclinical research in interventional radiology). The application process is the same for students eligible for HHMI-BWF, HHMI-FFB, HHMI-GMT, and HHMI-SIRF fellowships. There is no separate designation required in the online application. HHMI will identify applicants for consideration for these awards.

HHMI-BWF, HHMI-FFB, HHMI-GMT, and HHMI-SIRF fellows will receive the same level of funding and will have all the obligations and privileges of other fellows participating in the Medical Research Fellows Program.

## MEDICAL RESEARCH FELLOWS PROGRAM AT JANELIA FARM

The HHMI Medical Research Fellows Program is seeking highly talented students with an interest in neuronal networking and/or

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1. Blacks or African Americans, Hispanics, Alaska Natives, American Indians, and Native Pacific Islanders.

imaging at the cellular and molecular level for an intense year-long research training experience at the Janelia Farm Research Campus, a world-class biomedical research center in Ashburn, Virginia. Students should have a proven track record of research accomplishment and a commitment to a basic research field being pursued by Janelia Farm investigators. Applicants receiving a fellowship will be matched with a research mentor at Janelia Farm and will live and work on the campus, located in the Washington, D.C. area. Students must comply with the specific application and eligibility requirements for the Janelia Farm program.

# Fellowship Support for Research Training

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# Fellowship Support for Research Training

## Eligibility

Applicants must be currently enrolled in a medical, dental, or veterinary school in the United States. Students may apply during any year of their studies, but applicants in the last year of school must defer graduation until completion of the fellowship year. Those applying in the fourth year of medical, dental, or veterinary school must make a commitment to conducting 12 months of continuous, full-time research with minimal interruptions for interviews for residency or post-graduate training. These fellowships are not available to students enrolled in a combined medical, dental, or veterinary/Ph.D. program (e.g., M.D./Ph.D.), a Ph.D. program, or an Sc.D. program or to those who have completed a Ph.D. or an Sc.D. in a laboratory-based science.<sup>2</sup>

It is advantageous for applicants to have prior research experience. But, it is only *required* for those applying for the Janelia Farm program. Applicants with a year of full-time research experience since entering medical, dental, or veterinary school must show how further full-time research experience at this time would strongly enhance their future research careers. Students applying for the Medical Research Fellows Program at Janelia Farm should have significant research experience and accomplishments.

The fellowship term for all Medical Fellows, including those at Janelia Farm, may begin no earlier than June 1, 2012, and no later than September 1, 2012. There are no citizenship requirements for application, but those who

are not U.S. citizens must have and maintain an appropriate visa with eligibility to work in the United States status by the award acceptance deadline of March 30, 2012. Students must be authorized to work in the United States during the entire term of their HHMI fellowship year. HHMI will not handle visa matters for applicants.

Students applying for a position as a Medical Research Fellow at Janelia Farm must be able to start the fellowship year between June 1 and September 1. Those who are not U.S. citizens must have eligibility to work status by the award acceptance deadline of March 30, 2012 as they will be employees of Janelia Farm. Those who are in the U.S. on a student visa must have their home school authorize [Optional Practical Training](#) or [Curricular Practical Training](#) by the award acceptance deadline of March 30, 2012.

Students may apply to either the Medical Research Fellows Program at Janelia Farm or the standard Medical Research Fellows Program. It is highly recommended that those applying for the Janelia Farm opportunity have a mentor and project in mind at another fellowship institution in the event their prescreening application does not progress in the Medical Research Fellows at Janelia Farm competition. Those not progressing past the Janelia Farm interview stage are strongly encouraged to complete the standard Medical Research Fellows Program application with a mentor at another fellowship institution by January 11.

Applicants may not concurrently have two Medical Research Fellows applications in the HHMI

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2. The eligibility of applicants with a doctoral degree in a science that is not laboratory based will be determined by HHMI on a case-by-case basis.

Competition System (e.g., a Medical Research Fellows at Janelia Farm application and a standard Medical Research Fellows application). However, Medical Research Fellows at Janelia Farm applicants may apply to the standard Medical Research Fellows Program, with a mentor at another fellowship institution, after notification in early or mid-December that their Janelia Farm application is not progressing to the next stage of the competition.

## Loan Deferment

HHMI can complete loan deferment forms for fellows so that they are able to defer their loans during their HHMI fellowship year.

## Area of Research

The proposed project must be in the basic, translational, or applied biomedical sciences. HHMI does not fund health services or health policy research.

### BASIC SCIENCE RESEARCH

Basic science research is conducted to increase understanding of the physical, chemical, and functional mechanisms of life processes and diseases.

### TRANSLATIONAL RESEARCH

Translational research is the process of applying ideas, insights, and discoveries generated

through basic scientific inquiry to the treatment or prevention of human diseases.

### APPLIED RESEARCH

Applied research is directed toward specific objectives, such as the development of a new drug, therapy, or therapeutic procedure. It involves the application of existing knowledge to a specific medical problem. Applied research can be conducted with animals; non-animal alternatives, such as computer models or tissue cultures; or humans.

Examples of eligible fields of research include the following:

Biochemistry	Immunology
Bioinformatics <sup>3</sup>	Mathematical and computational biology
Biomedical engineering	Microbiology
Biophysics	Molecular biology
Biostatistics	Neuroscience
Cell biology	Pharmacology
Developmental biology	Physiology
Epidemiology <sup>4</sup>	Structural biology
Genetics	Virology

Applicants to the Medical Research Fellows Program at Janelia Farm should review the research underway at Janelia Farm to determine if the projects being pursued meet their interests: [www.hhmi.org/janelia/labs.html](http://www.hhmi.org/janelia/labs.html).

3. Research directed toward developing new approaches and tools for using large databases of biological information, such as nucleotide sequence and protein structure, or for analyzing complex biological systems. For purposes of fellowship eligibility, health services research, such as computerized diagnosis or treatment algorithms, is not included in bioinformatics.

4. Research directed toward an understanding of biological factors relevant to disease distribution in populations or of associations with biological factors that may suggest causal influence and/or prevention strategies.

## Research Mentor and Research Plan

The applicant is responsible for selecting a research mentor at an academic or nonprofit research institution in the United States and for making arrangements to work in that person's laboratory. HHMI will not make these arrangements. The designated mentor must be the faculty member who will directly supervise the proposed research. *A mentor may have no more than two applicants in any one competition year.* An applicant may have a co-mentor if her or his research plan crosses areas of expertise, or if the primary mentor is more junior and a senior co-mentor would strengthen the research training experience.

*Selection of a mentor is a key step in the application process and a particularly important element in evaluation of the application by the review panel.* In selecting a mentor, the applicant should seek a scientist who has recent publications in the area of research, experience in the research techniques to be used, external grant support from NIH or other major agencies, the ability to provide financial resources to support the research project during the fellowship term, and the time and interest to train the applicant. Location in a department that will provide a stimulating research environment is an additional factor to consider in selecting a mentor. The proposed mentor does not have to be an HHMI investigator. Applicants are encouraged to consult with several individuals, including deans, senior faculty, and members of the laboratory under consideration, before making a final choice of mentor. (See "Application Tips," page 13.)

The research plan should be suitable for a one-year research-training period. *It is extremely*

*important that the project provides a rigorous, high-quality research training experience doing hypothesis-driven research, not technician-type work.* The project should ask a specific and substantive question about basic biological processes or disease mechanisms, diagnosis or treatment. In general, applicants should avoid limiting the project to working out details of a laboratory technique. In addition, they should avoid projects that involve a single protocol for the fellowship term with no opportunity to devise experiments based on data from initial experiments. (See "Application Tips," page 13.)

Extensive discussion between the applicant and the proposed mentor is expected in order to identify an appropriate research project—one that is up-to-date, instructive, and feasible in a one-year fellowship period—and to craft the research plan. It will be assumed that the applicant has written the plan after discussion with the mentor. At the end of the project plan, the applicant must provide a brief contribution statement, signed by the applicant and mentor, affirming that both parties worked together to discuss the content of the proposal, and to develop its scope and structure.

*Those who have selected a mentor at a distant institution should note that in past years reviewers have found that some of these applications did not reflect an appropriate level of interaction with the mentor.* These applicants especially must allow sufficient time to develop the research plan fully and to make evident the quality of the expected working relationship.

Applicants to the Medical Research Fellows Program at Janelia Farm will be matched with a Janelia Farm mentor if their application progresses past the interview stage. See further details on the two-step application process for Janelia Farm on page 11.

## Location of Study

Fellows must choose an academic or nonprofit research institution in the United States (excluding NIH) as their fellowship institution. Research may be conducted at an institution outside the United States as long as the fellow's mentor is affiliated with the U.S. fellowship institution (on faculty). The fellowship institution need not be the student's medical, dental, or veterinary school. Fellows are responsible for making all arrangements for attendance at their chosen institution.

A fellow may engage in research away from the fellowship institution (including a non-U.S. research institution) during the fellowship term if, in the research mentor's judgment, such an arrangement would further the fellow's training.

Awardees of the Medical Research Fellows Program at Janelia Farm will work and live at the Janelia Farm Research Campus in Ashburn, Virginia.

## Fellowship Term

The fellowship term may begin no earlier than June 1, 2012, and no later than September 1, 2012. The term of the fellowship is 12 consecutive months.

Fellows must engage in research full time during the fellowship term. Fellows may not undertake medical, dental, or veterinary school coursework, a clerkship, or any graduate school coursework, with the exception of one graduate course per semester that is directly related to the fellow's HHMI research project, with approval in advance from HHMI. Students may receive academic credit for their research.

## Stipend and Allowances

The stipend is \$28,000 for the 2012–2013 fellowship year. There are no allowances for dependents. HHMI provides funds to the fellowship institution, which in turn pays the stipend to the fellow.

Indirect costs (F&A) are not covered with this award. Federal, state, or local fringe benefit rates and employer-related costs such as FICA and Medicare (employer's portion), worker's compensation, unemployment insurance, and similar costs cannot be charged to this award.

A fellow may not supplement the stipend through private employment or consulting work or receive funds from another external fellowship, scholarship, or similar award. However, the fellow's institution may supplement the stipend in accordance with its usual policy for comparable students.

Fellowship institutions receive an annual research allowance of \$5,500 on behalf of each fellow. The allowance may be used for Medical Research Fellows Program enrichment activities that directly benefit the fellow, including travel to scientific meetings, HHMI Medical Research Fellows regional meetings, HHMI science meetings, and for some of the supplies for the fellow's research project, journal subscriptions, and similar research-related expenses. Disposition of the allowance will be made in consultation with the fellow's mentor.

HHMI also provides fellowship institutions with an annual fellow's allowance of \$5,500 on behalf of each fellow. The first priority for use of this allowance is health, dental, and vision insurance for the fellow. If the fellow chooses, the allowance may also be used for education-related expenses incurred as part of the fellow-

ship. It is also permissible to use the fellow's allowance for tuition and registration fees within the fellowship term for one graduate course per semester specifically related to the fellow's research, with advance approval from HHMI, and research-related expenses that directly benefit the fellow. It is not permissible to use any funds in the award for tuition or registration fees toward any professional degree, except to the extent that students are required to maintain their matriculation at their medical, dental, or veterinary school.

If the fellow is conducting research at an institution that is not his or her medical, dental, or veterinary school, the fellow's allowance may be used to cover reasonable travel and moving expenses to and from the fellowship institution up to a maximum of \$1,500 (roundtrip).

HHMI funds may not be used for the purchase of computers, computer equipment, software, cell phones, PDAs, MP3 players, e-readers, or any related accessories.

At the end of their fellowship year, fellows may use balances remaining in the fellow's or research allowance accounts for continuation of the research conducted during their HHMI fellowship year, attendance at scientific conferences if they are presenting their HHMI research, and publications costs related to their HHMI project, if any, as long as they are matriculated in medical, dental, or veterinary school. The fellowship institution must make every attempt to make these funds available to the fellow while they are still matriculated.

Medical Research Fellows at Janelia Farm will receive an annual salary of \$28,000 as employees of Janelia Farm for their research year. They will also be provided with health insurance, furnished on-campus housing, a \$5,500 allowance

for conference travel, and related courses and books, and roundtrip relocation expense reimbursement (up to \$1,500).

## Evaluation and Selection

Fellowships are awarded on the basis of the applicant's ability and promise for a research career as a physician-scientist or medically trained researcher, and the quality of the training that will be provided. The applicant's ability and promise are assessed in terms of items such as the proposed research plan, letters of reference, undergraduate transcripts, and scores on the Medical College Admission Test (MCAT), Dental Admission Test (DAT), or Graduate Record Examination (GRE), if available. The quality of the training is evaluated on the basis of the research plan and the information provided in the mentor's endorsement, including the mentor's curriculum vitae, a list of current funding, a list of trainees, and a statement of plans for training the applicant.

Applications will be reviewed by a panel of distinguished biomedical scientists with expertise in the eligible fields of research. The panel convened by HHMI will evaluate each applicant's demonstrated scholarship and promise for future achievement in biomedical research. The panel will also consider the appropriateness of the designated mentor and the research project for training in the proposed area of research, the quality of the training environment, and the mentor's stated plans for training the applicant. The review panel will evaluate the impact of the research experience and how it would further the applicant's development in relation to the level of any previous research experience.

The final selection of awardees will be made by HHMI, taking into account the evaluations of the review panel and the program goals. Unfortunately, due to the large number of applications to this program, individual feedback is not feasible.

## Conditions of Appointment

Appointment of a fellow is contingent on satisfactory completion of the academic year in which the fellowship application was submitted. Fellows will be required to engage in research full time and may not undertake any medical, dental, or veterinary school coursework, a clerkship, or any graduate school coursework during the fellowship term, with the exception of one graduate course per semester that is directly related to the fellow's HHMI research project, with approval in advance from HHMI. During that year, fellows may not be enrolled in a Ph.D. or an Sc.D. program.

After an award has been made, a change of fellowship institution or mentor or a major change in the research plan requires HHMI approval for continuation of the fellowship.

Fellows are expected to conduct research according to the highest scientific and ethical standards and in compliance with all applicable laws, regulations, and policies regarding protection of human research subjects, humane care and use of laboratory animals, and laboratory safety. Fellows are responsible for the conduct of research and the preparation of research results for publication within the established guidelines of their fellowship institutions. HHMI assumes no responsibility for a fellow's research findings or their interpretation.

## 2013 Meeting of Medical Research Fellows

All current medical fellows will gather at HHMI headquarters in Chevy Chase, Maryland, in May 2013 for the Meeting of Medical Research Fellows. The occasion will provide fellows with an opportunity to share their scientific accomplishments with their peers and to hear scientific talks by a leading physician-scientist, and other program alumni.

*All fellows are required to participate in the meeting and to present either a 10-minute talk or a poster on their research projects.*

This publication sets forth only the most basic program information. All fellowships are subject to further provisions contained in the booklet *Information for Medical Student Fellows and Fellowship Institutions* (which will be e-mailed to awardees and posted on the HHMI website at [www.hhmi.org/grants/for\\_grantees/](http://www.hhmi.org/grants/for_grantees/)) and any further documentation provided by HHMI.

## Application Materials

Application is via HHMI's Web-based competition system at [www.hhmi.org/competitions](http://www.hhmi.org/competitions). Submission of all applicant, mentor, dean, and reference forms must be via the Web.

**A complete application has three sections.**

**Section 1:** The applicant's portion

- Registration
- Application

*Contact Information*

*Dean's Contact Information*

*References' Contact Information*

*Mentor's Contact Information*

*Confidential Information*

*HHMI Affiliations*  
*Education*  
*Demographic information (optional)*  
*Research Experience*  
*Professional Activities*  
*Honors and Awards*  
*Publications (if any)*  
*Personal Statement* (should not exceed one single-spaced page)  
*Project Title* (should not exceed 255 characters, including spaces and punctuation)  
*Research Plan Summary* (should not exceed 1,600 characters including spaces and punctuation, or approximately one-third of a single-spaced page)  
*Research Project Plan* (should not exceed five single-spaced pages)  
*Research Project Plan Citations* (should not exceed two single-spaced pages)

In addition to the Web-based submission above, the applicant is responsible for

- Providing the mentor, co-mentor (if applicable), dean, and references with the information necessary for them to submit the required letters and other information. After the applicant registers and initiates the Web-based application system, he or she will be able to submit the names and contact information for the mentor, co-mentor (if applicable), dean, and references. Once the names have been submitted, e-mails generated by the Web-based system will provide them with login instructions. *It is the applicant's responsibility to make sure that the mentor (co-mentor, if applicable), dean, and references have provided all required information by the application deadline.*

**Section 2:** The mentor's endorsement (and co-mentor's, if applicable)

The endorsement includes information on the mentor's plans for training the applicant, training experience, grant support, a brief curriculum vitae, and an evaluation of the applicant.

Web access for the mentor will be initiated by the applicant (see Section 1 above).

**Section 3:** Letters of reference

- Dean's endorsement. By writing a letter on your behalf, the dean must indicate that you will be allowed to participate in the program, *if selected*. The dean will be asked to comment on your potential for scholarly achievement, elaborating, where appropriate, on such matters as scientific knowledge, performance as an undergraduate, medical, dental, or veterinary student, in research-participation programs, and ability to make sound judgments. In addition, the dean may describe pertinent personal characteristics such as perseverance, persistence in the face of obstacles, creativity, independence, and motivation.
- Two letters of reference from persons (other than the mentor or co-mentor on this application or dean) who are familiar with the applicant's talents, abilities, and previous research experience, if any, and could comment on the applicant's promise and potential, especially as a physician-scientist.

Web access for the dean and references will be initiated by the applicant (see Section 1 above).

## APPLICATION TO THE MEDICAL RESEARCH FELLOWS PROGRAM AT JANELIA FARM

Applicants should note that the timeline and requirements differ for the Janelia Farm program as follows:

Two-step application process:

- 1) The prescreening application is due by November 1 followed by interviews for selected candidates at Janelia Farm in early December.
- 2) Applicants progressing after interviews will be matched with a Janelia Farm mentor, develop a research proposal with that mentor, and complete the remainder of the Medical Research Fellows Program application by January 11.

All application components must be submitted online in the HHMI Competition System.

The prescreening application includes:

- Contact Information
- References' Contact Information
- Education
- Research Interests and Experience (should not exceed five single-spaced pages)
- Research Experience
- Professional Activities
- Honors and Awards
- Publications (if any)

Two reference letters are to be submitted online directly by referees by November 1.

Applicants that advance after the prescreening stage will have to complete the remainder of the Medical Research Fellows Program application components by January 11:

- Dean's Contact Information
- Mentor's Contact Information
- Confidential Information

- HHMI Affiliations
- Personal Statement (should not exceed one single-spaced page)
- Project Title (should not exceed 255 characters, including spaces and punctuation)
- Research Plan Summary (should not exceed 1,600 characters including spaces and punctuation, or approximately one-third of a single-spaced page)
- Research Project Plan (should not exceed five single-spaced pages)
- Research Project Plan Citations (should not exceed two single-spaced pages)

The dean's letter and mentor's endorsement materials, described Sections 2 and 3, above, are to be submitted online directly by those third parties by January 11.

The two reference letters submitted for the prescreening application will be used for the remainder of the Medical Research Fellows Program application.

## Application and Award Dates

All components of the application must be submitted online **by January 11, 2012**, to be considered in the fellowship competition.

Applicants should retain copies of the application materials they have completed and submitted online. Application materials will not be returned. *Evaluations of the review panel will not be made available to the applicant.*

HHMI will notify applicants by e-mail of the outcome of their applications on March 16, 2012. Awardees must notify HHMI by March 30, 2012, of their intent to accept or decline the award.

## Continued Support for a Second Year

In the spring of the initial year of research training, fellows may apply for continued fellowship support for a second year of full-time research. The second-year fellowship provides the same level of funding (stipend, research allowance and fellow's allowance) as the first-year fellows. Only a small number of these fellowships will be awarded. They are made only when a second year of research training will significantly further the research experience of the fellow. Fellows who will be enrolled in a funded M.D./Ph.D. or Ph.D. program are not eligible to apply.

**Please contact us if you have questions or need additional information.**

Medical Research Fellows Program  
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Medical Education Programs  
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Website: [www.hhmi.org/medfellowships](http://www.hhmi.org/medfellowships)

# Application Tips

While all aspects of the application are evaluated, the proposed mentor and the research plan are extremely important. In addition, reviewers place considerable weight on the plans for training the applicant and on reference letters.

## ONLINE APPLICATION

- Observe the **January 11, 2012**, submission deadline.
- Proofread carefully; do not rely on spell check.
- Read and follow the instructions.
- Follow the guidelines for number of pages. Be brief when so requested.
- There is no need for you to send HHMI your MCAT scores and transcripts if you have this information on file with the AAMC. HHMI will obtain the scores and transcripts directly from AAMC. If you do not have this information on file with the AAMC, you must request transcripts from your undergraduate institution(s), and you will need to request that your DAT or GRE scores be sent directly to HHMI.
- Before submitting your application online, print a copy for your records.

## RESEARCH EXPERIENCE

- Present the topic of your research in a way that makes clear why it is of interest. Be sure to place your work in the context of the relevant scientific field.
- Do not focus on techniques. Emphasize the scientific question you addressed, the general approach you took, and your findings and conclusions.
- Clearly describe the contributions you made in the laboratory.

## SELECTING A MENTOR

- Your choice in mentors can significantly affect the outcome of your application.
- Your mentor should be well-funded and have recent publications in your proposed research area. Use PubMed ([www.pubmed.gov](http://www.pubmed.gov)) to look up a potential mentor's publication record.
- Deans, chairpersons, and course directors are excellent resources for identifying potential mentors. They can help guide you to productive laboratories with interest and experience in training medical, dental, or veterinary students. You are encouraged to consider HHMI investigator laboratories. A list of investigators interested in mentoring Medical Research Fellows can be found at [www.hhmi.org/medfellowships](http://www.hhmi.org/medfellowships).
- Talk with several possible mentors. Confirm that the mentors under consideration have recent publications, sustained external grant support, and a strong record training medical, dental, or veterinary students, and the time and interest to train you.
- Talk with other medical, dental, or veterinary students, graduate students, and postdoctoral researchers who have been in the laboratory you are considering. Confirm that the laboratory is a reasonable working environment and that the mentor is likely to spend significant time with you.

## RESEARCH PLAN

- Your project should be *hypothesis-driven*—that is, you should ask a specific and substantive question about biological processes or disease mechanisms, diagnosis or treatment that can be tested experimentally.

- Avoid a plan that is too descriptive, one that confirms a hypothesis rather than testing a hypothesis. Is it an intellectually challenging project?
- Emphasize the scientific and, if possible, the medical importance of the question and the experimental approach you plan to take.
- Explain why the experimental system (e.g., organism, gene, or protein) was selected for study of the question proposed.
- Include details on data analysis, quantitation methods, if applicable, and overall design of experiments. A proposed timeline for the experiments would be helpful.
- Make sure reagents or equipment that is vital to the research are readily available and accessible.
- Anticipate potential problems in the research and present alternative strategies.
- It is beneficial to include a *discussion* on data analysis and interpretation of results. Discuss the underlying mechanisms of proposed models, if applicable.
- It is expected that your mentor's ideas will be in your plan, but restate them yourself. Do not borrow extensively from your mentor's grant proposal text. Reviewers want to read your presentation of the issues and approaches, and it is usually obvious when parts of the plan are taken directly from a grant proposal.
- Allow time for discussion with your mentor and for feedback on your drafts. Have another reviewer (a faculty member, research advisor, or a dean) read and critique your project plan. Ask the mentor and the other reviewer to consider not only technical aspects but also the feasibility of the project. Is it suitable for a one-year experience? Is it a good training vehicle? Make sure it's not just a technical exercise.

- Be sure to specify your role and that of your mentor (and others) in the development of the plan.

#### PERSONAL STATEMENT

- It is understood that you may not yet have definite career goals. Explain the options you are considering at this point.
- If you have limited research experience, explain what led you to the fellowship program and what you hope to get out of the research experience.
- If you have completed one year or more of full-time research, explain how an additional full-time research experience at this time would strongly enhance your future research career, how you would benefit, and what you hope to learn from the experience.
- Use the Personal Statement as the place to explain not only your intellectual motivation but also any personal motivations (for example, inspiration by a key mentor).
- Use the Personal Statement also to note extenuating circumstances that resulted in atypical test scores or grades, why a research mentor was not asked to submit a reference letter (see next section), or why a "file copy" letter is used (see last bulleted item in next section).
- It is in your best interest to submit a statement that is distinct from the one you submitted for your medical, dental, or veterinary school application.

#### REFERENCE LETTERS

- Provide your references with a résumé of your education and research experience. It may also be helpful to provide a copy of your research plan.

- If you have had a significant research experience but choose not to submit a reference letter from your supervisor, explain why (in the Personal Statement). Reviewers may question why it is absent.
- Some applicants request letters from prominent scientists who do not know them well. General letters of this type are not effective. Request letters from individuals who can evaluate your potential as a scientist.
- If at all possible, avoid using a “file copy” of an old reference letter. If you must do so, explain why (in the Personal Statement).

#### **APPLICATION TIPS FOR THE MEDICAL RESEARCH FELLOWS PROGRAM AT JANELIA FARM**

##### **Prescreening Application:**

*Research Interests and Experience.* Describe in detail your specific research interests, and their

relevance to the research focus area(s) you would be interested in pursuing at Janelia Farm (review the Laboratories at Janelia Farm: [www.hhmi.org/janelia/labs.html](http://www.hhmi.org/janelia/labs.html)). Discuss why your research interest and experience, skills, scientific/technical expertise, etc. would make you an excellent candidate for the program at Janelia Farm.

##### **Standard Medical Research Fellows**

##### **Program Application:**

Medical Research Fellows Program at Janelia Farm applicants should have a mentor and project in mind at another fellowship institution in the event their prescreening application does not progress in the Janelia Farm competition. Those not progressing past the interview stage are strongly encouraged to complete the standard Medical Research Fellows Program application with a mentor at another fellowship institution by January 11.

HHMI

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