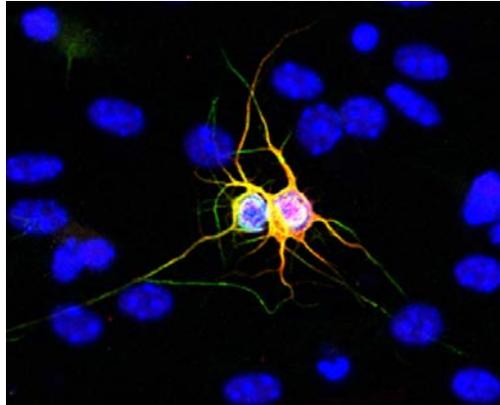
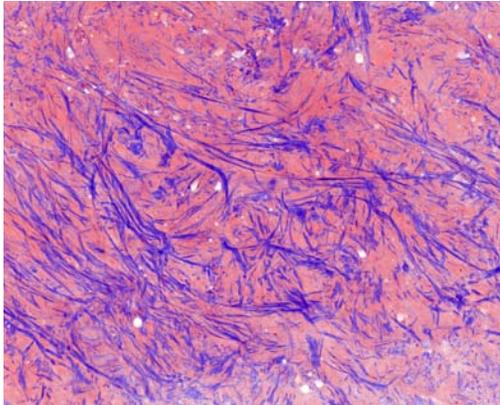
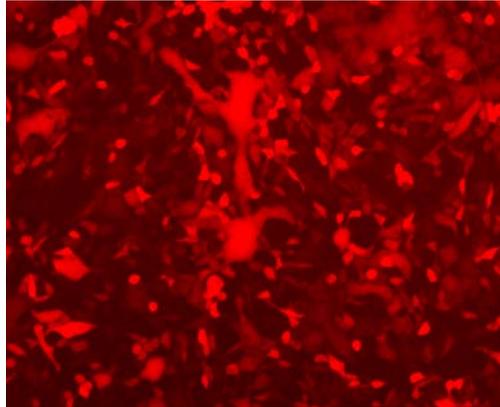
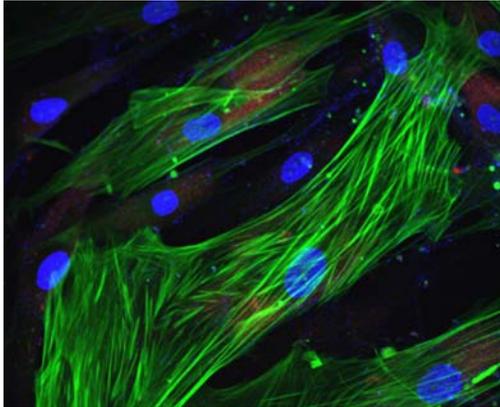


# Medical Research Fellows Program

---



## Program Information

# 2018

Application Deadline  
January 11, 2018

Announcement of Awards  
March 16, 2018

## 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 physician-scientists.

The fellowship provides support for one year of full-time, mentored research training in fundamental biomedical research.

HHMI plans to award up to 60 fellowships to medical, dental, and veterinary students who have a demonstrated interest in and commitment to biomedical research as evidenced by previous wet-laboratory research experience and a track-record of 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.

---

**Partnership Initiatives.** Some Medical Fellows conducting research in the following areas may be supported by organizations partnering with HHMI:

- Duchenne muscular dystrophy research (Partner: Duchenne Research Fund);
- Epilepsy research (Partner: Citizens United for Research in Epilepsy);
- Genetics research (Partner: American Society of Human Genetics); mentor must be ASHG member;
- Inherited retinal degenerative disease research (Partner: Foundation Fighting Blindness);
- Orthopaedic research (Partner: Orthopaedic Research and Education Foundation);
- Parkinson’s disease research (Partner: Parkinson’s Foundation);
- Preclinical research in interventional radiology (Partner: Society of Interventional Radiology Foundation); mentor must be SIR member; and
- Veterinary student research (Partner: Burroughs Wellcome Fund).

The application process is the same for students eligible for partnership-sponsored fellowships. Students apply via the HHMI Competition System and designate their interest in a partner-sponsored fellowship slot within the Medical Fellows Program application.

Fellows sponsored by organizations that have partnered with HHMI 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

The HHMI Medical Research Fellows Program is seeking highly talented students with an interest in neuronal networking and/or imaging at the cellular and molecular level for an intense year-long research training experience at the Janelia Research Campus, a world-class biomedical research center in Ashburn, Virginia. Students should have a proven track-record of research accomplishment, a commitment to a basic research field being pursued by Janelia investigators, and must comply with the specific application and eligibility requirements for the Janelia program. Awardees will live and work on the campus, located in Loudoun County, Virginia, which is near Washington, D.C.

## Fellowship Support for Research Training

- 5 ELIGIBILITY**
- 5 LOAN DEFERMENT**
- 5 AREA OF RESEARCH**
- 6 RESEARCH MENTOR AND RESEARCH PLAN**
- 6 LOCATION OF STUDY**
- 6 FELLOWSHIP TERM**
- 7 STIPEND AND ALLOWANCES**
- 7 EVALUATION AND SELECTION**
- 8 CONDITIONS OF APPOINTMENT**
- 8 2018 SCIENTIFIC MEETING OF MEDICAL FELLOWS**
- 8 APPLICATION PROCESS**
- 10 APPLICATION TO THE MEDICAL RESEARCH FELLOWS PROGRAM AT JANELIA**
- 10 APPLICATION AND AWARD DATES**
- 10 CONTINUED SUPPORT FOR A SECOND YEAR**
- 10 APPLICATION TIPS**
- 12 APPLICATION TIPS FOR THE MEDICAL RESEARCH FELLOWS PROGRAM AT JANELIA**

# 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.

All students must make a commitment to conducting 12 months of continuous, full-time laboratory 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/PhD program (e.g., MD/PhD), a PhD program, or an ScD program or to those who have completed a PhD or an ScD in a laboratory-based science.

Previous wet-laboratory research experience is required. Applicants should have one or more substantial research experiences (e.g., summer or part-time research experience), other than course-based labs/research experiences. 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 should have significant research experience and accomplishments.

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 23, 2018. 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.

Applicants may not concurrently have two Medical Research Fellows applications in the HHMI Competition System (e.g., a Medical Research Fellows at Janelia application and a standard Medical Research Fellows application). It is recommended that those applying for the Janelia option 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 competition. Those not progressing past the Janelia interview stage are encouraged to complete the standard Medical Research Fellows Program application with a mentor at another fellowship institution by January 11.

## 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 clinical research, 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 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 or non-animal alternatives, such as computer models or tissue cultures.

Examples of eligible fields of research include the following:

Biochemistry	Mathematical and computational biology
Bioinformatics	Microbiology
Biomedical engineering	Molecular biology
Biophysics	Neuroscience
Biostatistics	Pharmacology
Cell biology	Physiology
Developmental biology	Structural biology
Epidemiology	Virology
Genetics	
Immunology	

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

## 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 a 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 entire proposed fellowship term, the time and interest to train the applicant, a track-record of mentorship, and a strong, stimulating research environment in the department. The mentor should be aware that s/he is responsible for covering visiting student researcher fees, fringe rates or other costs imposed by the host institution, if any, for a Medical Fellow from a different institution. 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 10.)

The research plan should be suitable for a one year research training period. ***It is extremely important that the project provide a rigorous, high-quality research training experience doing hypothesis/discovery-based research, and 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 10.) 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.

***In past years reviewers have found that some applications did not reflect an appropriate level of interaction with the mentor prior to submitting the application.*** Applicants should 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 will be matched with a mentor if their application progresses past the interview stage. See further details on the two-step application process for Janelia on page 10.

## LOCATION OF STUDY

Fellows must choose an academic or nonprofit research institution in the United States (excluding NIH or other government agencies) as their fellowship institution. 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 will work and live at the Janelia Research Campus in Ashburn, Virginia.

## FELLOWSHIP TERM

The fellowship term may begin no earlier than May 1, 2018, and no later than September 1, 2018. 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. They may not take time off to study for boards or other examinations.

## STIPEND AND ALLOWANCES

For the 2018–2019 fellowship year, the total amount awarded to each Medical Fellow is \$43,000. HHMI will provide the funds to the fellowship institution, which in turn will pay the fellow. The annual stipend is \$32,000. In addition to the stipend, the award includes a fellow's allowance of \$5,500 and a research allowance of \$5,500.

There are no allowances for dependents. If the student begins the fellowship term prior to the HHMI payment date in early June, it is his/her responsibility to arrange for temporary funding by the fellowship institution until the HHMI funds are received and the award is set-up.

The research allowance is for research-related enrichment activities that directly benefit the fellow, including travel to scientific conferences, Medical Fellows Program regional meetings, HHMI science meetings; the Scientific Meeting of Medical Fellows in April; and for some of the fellow's research-related expenses, if there is a balance remaining after all of the aforementioned travel-related expenses have been covered.

The first priority for use of fellow's allowance is health, dental, and vision insurance for the fellow. The allowance may also be used for required education-related fees incurred as part of the fellowship. 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. It is 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. 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 round-trip. Fellows are required to comply with HHMI relocation guidelines and to submit an estimation of moving expenses to HHMI in advance of relocation.

Indirect costs (F&A) are not provided 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. Visiting student researcher fees or other costs for fellows conducting research at an institution other than their own school may not 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.

HHMI funds may not be used for the purchase of electronic devices or software, including computers, computer equipment, camera or video equipment, 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 pre-acceptance 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 will be expected to live on-campus in furnished housing.

## EVALUATION AND SELECTION

Fellowships are awarded on the basis of the applicant's ability and promise for a research career as a physician-scientist, and the quality of the training that will be provided. The applicant's ability and promise are assessed through the track-record of research experience, the personal statement, the proposed research plan, and letters of reference. The quality of the training is evaluated through 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 an individualized training plan for the applicant.

Applications will be reviewed by a committee of distinguished biomedical scientists. The committee will evaluate each applicant's demonstrated scholarship and promise for future achievement in biomedical research.

The committee 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 committee 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 committee and the program goals. 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, and on the student's academic status as a student in good standing.

Fellows will be required to engage in laboratory 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 PhD or an ScD 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.

### 2018 SCIENTIFIC MEETING OF MEDICAL FELLOWS

All current Medical Fellows are required to participate in the Scientific Meeting of Medical Fellows, which will be held in conjunction with the American Society of Clinical Investigation (ASCI)-Association of American Physicians (AAP) Joint Meeting in Chicago. Fellows will present a poster on their fellowship research project to ASCI members, hear scientific talks by leading physician-scientists, and attend career development sessions.

All fellowships are subject to further provisions contained in the booklet Information for Medical Fellows and Fellowship Institutions (which will be e-mailed to awardees) and any further documentation provided by HHMI.

### APPLICATION PROCESS

Application is via HHMI's Web-based Pathway system accessible via [www.hhmi.org/medfellowships](http://www.hhmi.org/medfellowships). Submission of all applicant, mentor, dean, and reference forms must be via the Pathway system. Users may save entries and return to the system to complete application components or to check the status of the application after submission.

**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 four single-spaced pages*)
  - Research Project Plan Citations (*should not exceed one single-spaced page*)

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 components and other information.

After the applicant registers and initiates the Web-based application, 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 components (and co-mentor's, if applicable)

- **Contact Information**
- **Training Record** — completion of a table indicating his/her experience supervising the training of individuals in biomedical research by entering the number of trainees by educational level
- **Trainee Outcome** — report the career outcomes of up to 6 representative trainees: 3 most recent and 3 most illustrious (name, current institution, position, training start and end dates [month/year])
- **CV or NIH Biosketch** — upload not to exceed 5 pages
- **Grant Data** — upload a list of current grants, not to exceed 4 pages, including source(s), start and end dates, title(s), and annual direct costs. May use the supplemental grant information page or Other Support page included in the NIH grant applications.
- **Applicant Assessment** — assessment of the applicant's potential for a career as a physician-scientist, as evidenced from mentor's interaction with him or her. Letter should be no longer than 1.5 pages in length.

*Comment on:*

- quality of the applicant's academic preparation for research and scientific background
- applicant's intellectual and research abilities including perception of his or her originality, accuracy, and enthusiasm for the project
- relative contributions mentor and applicant have made in the development and writing of the research plan
- **Training Plan** — describe plans for the research training of this particular student and the research environment in the mentor's laboratory. Upload should not exceed 2 pages. Individualized training plan is very important in the overall evaluation of the application.

*Address:*

- how mentor will be involved in training the student on the proposed project and advising him/her on career development
- who will guide the applicant on day-to-day technical issues

- how the composition, size and structure of the mentor's research group will advance the student's success and research development
- what formal and informal seminars, laboratory meetings, journal clubs, etc. will be used to enrich the student's scientific development
- the adequacy of financial and physical resources, including computer resources, to support the proposed project. The mentor is expected to have sufficient grant support to cover all research costs during the entire fellowship term. If grant(s) expire during the proposed fellowship term, state how research costs will be covered. HHMI does not provide support for computer equipment, software or related accessories.

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

**Section 3:** Dean's confirmation and letters of reference

- **Dean's confirmation.** By answering questions in the online application, the dean (may be a student affairs dean, advising dean, etc.) must indicate that the student will be allowed to participate in the program, *if selected*. Instead of submitting a dean's letter, the dean will be provided with a textbox to comment on the applicant's unique characteristics, qualifications, experiences, accomplishments or research interests that pertain to the application. Comments are limited to 2,500 characters including spaces.
- **Two letters of reference** from previous research mentors (other than the mentor or co-mentor on this application or dean), or other faculty members who are familiar with the applicant's talents, abilities, and previous research experience.

*Referee should discuss:*

- applicant's ability to conduct research, master knowledge required, and think independently
- applicant's potential for a career in biomedical research
- how applicant compares with others at the same stage
- student's qualifications, indicating the student's academic and intellectual abilities including his or her originality/creativity, accuracy, research ability, scientific background, ability to exchange ideas, perseverance in pursuing goals, and ability to relate to others.

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

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

### Two-step application process:

- 1) The prescreening application is due by November 1 followed by in-person interviews for selected candidates at Janelia in early December.
- 2) Applicants progressing after interviews will be matched with a Janelia 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 Pathway 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*)
- Official undergraduate transcripts and MCAT score report

Two reference letters are to be submitted online directly by referees by November 1 (see reference letter information on p. 12).

Applicants that advance after the prescreening stage will 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 four single-spaced pages*)
- Research Project Plan Citations (*should not exceed one single-spaced page*)

The dean's confirmation and mentor's components, described in 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, 2018**, 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 committee will not be made available to the applicant.*** HHMI will notify applicants by e-mail of the outcome of their applications on March 16, 2018. Awardees must notify HHMI by March 23, 2018 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 combined professional degree/PhD or PhD program are not eligible to apply.

## APPLICATION TIPS

### Online Application

- Observe the January 11, 2018, 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.
- Before submitting your application online, save a copy for your records.

### Research Experience

- Previous wet-laboratory research experience is required (one or more substantial research experiences; e.g., summer or part-time research experience), other than course-based labs/ research experiences.
- 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.
- It is important to include a summary of what you accomplished in each research experience.

### 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. S/he is expected to have sufficient grant support (NIH R01 or equivalent from other government or nonprofit sources) to cover all research costs related to your project during the entire fellowship term. If your mentor's grant(s) expire during the proposed fellowship term, s/he must state in the application how research costs will be covered. Use PubMed ([www.pubmed.gov](http://www.pubmed.gov)) to look up a potential mentor's publication record and NIH ProjectReporter to look up grants (<http://projectreporter.nih.gov>).
- 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 laboratories of HHMI investigators, HHMI professors, and Janelia researchers.

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, 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.

- A co-mentor should be added to the application if the research project plan is not within the mentor's area of expertise or if the primary mentor is a junior faculty member with limited grant support and training history.

### Research Plan

- Your project should be *hypothesis/discovery-based* — 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. We are interested in innovative, well-grounded ideas that are intellectually challenging.
- Emphasize the scientific and, if possible, the medical importance of the question and the experimental approach you plan to take.
- Explain why the experimental model 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, animal models and equipment that are 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.
- Your research project plan should be developed in collaboration with your mentor but written by you and reviewed by your mentor before submission.
- 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 scientist (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

- State why you are interested in laboratory research and how it might impact your career. What do you want to accomplish through the HHMI Medical Fellow experience? What discoveries—both scientific and personal—do you hope to make? We are interested in understanding your motivations for doing research and how the proposed experience will contribute to your future career.
- 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 enhance your future research career, how you would benefit, and what you hope to learn from the experience.
- 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.
- If you are in your final year of medical, dental or veterinary school, comment on why you waited until this year to apply, whether you will participate in residency interviews during your proposed research year, and how you will make-up for the time away from lab (e.g., by extending your fellowship term).

### 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

#### 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 (review the Laboratories at Janelia <http://www.janelia.org/janelia-research/labs>).

Discuss why your research interest and experience, skills, scientific/technical expertise, etc. would make you an excellent candidate for the program at Janelia.

#### Standard Medical Research Fellows Program Application:

Medical Research Fellows Program at Janelia 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 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.

#### INFORMATION

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

**Medical Research Fellows Program**  
Undergraduate and Graduate Programs  
4000 Jones Bridge Road  
Chevy Chase, MD 20815  
Phone: (301) 951-6708  
E-mail: [medfellows@hhmi.org](mailto:medfellows@hhmi.org)  
Website: [www.hhmi.org/medfellowships](http://www.hhmi.org/medfellowships)



Department of Science Education