

HHMI MEDICAL RESEARCH FELLOWS PROGRAM

FOR MEDICAL, DENTAL, AND VETERINARY STUDENTS

Presented by (Your Name)
2014 HHMI Medical Fellow



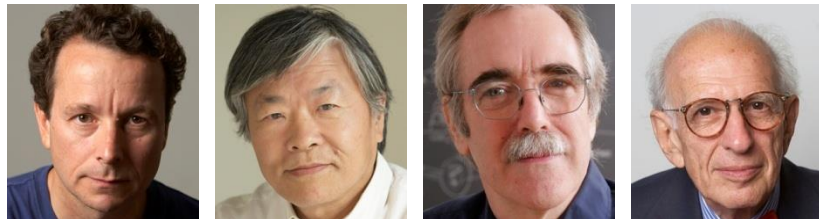
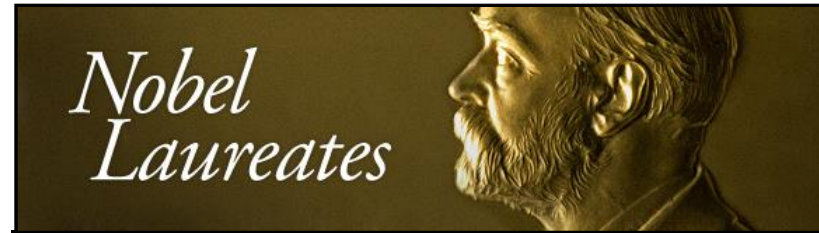
HHMI IS:

- A philanthropy established by the aviator and entrepreneur Howard Hughes
- Serves society through support of biomedical research and science education
- Largest U.S. philanthropy dedicated solely to biomedical research and education



HHMI INVESTIGATORS

- More than 300 Investigators
- 182 Members of the National Academy of Sciences!
- 18 Nobel laureates!
Including:
 - 2013 Nobels in Physiology or Medicine: Randy Schekman and Thomas Südhof
 - 2014 Nobel in Chemistry: Eric Betzig





MEDICAL RESEARCH FELLOWS PROGRAM

- Purpose: to increase the number and quality of physician-, dentist-, and veterinarian-scientists
- Mechanism: engage medical, dental, and veterinary students in research during professional education
- Program: year-long mentored research training experiences for students from U.S. schools

ELIGIBILITY

- In good standing at a U.S. medical, dental, or veterinary school
- Not currently in a combined professional degree/PhD program
- May not have a PhD in a laboratory-based biomedical science
- May apply as a 4th year student, if you defer graduation
- Previous laboratory research experience **required**
- U.S. citizenship not required but you must be eligible to work in the U.S.

RESEARCH LOCATION

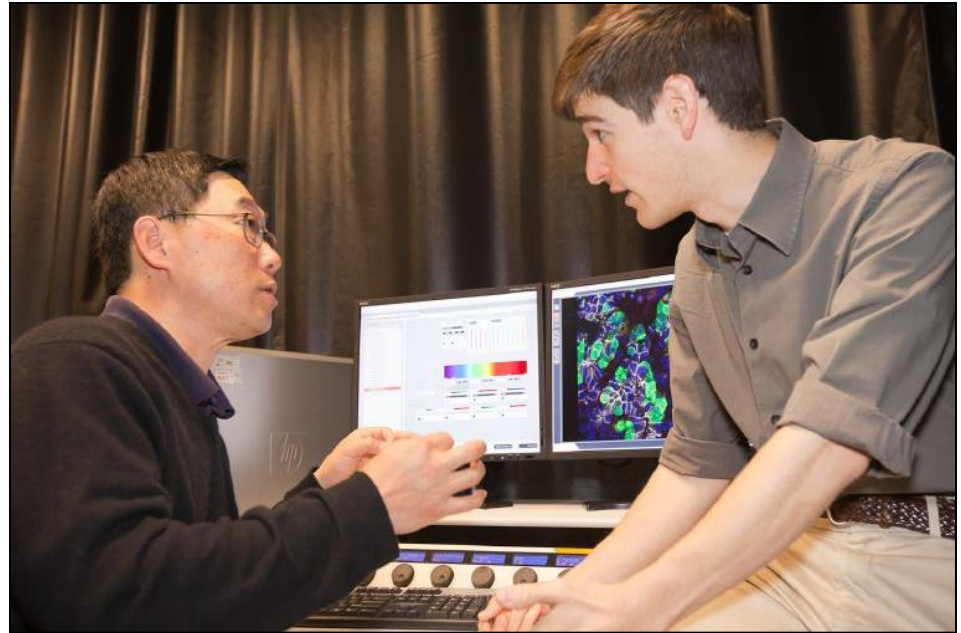
- May work at any academic or nonprofit institution in the U.S. except the NIH or other federal agencies
- May do research abroad with U.S. institution-affiliated mentor
- May work at your home institution



KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH) in Durban, South Africa, a state-of-the-art facility funded by HHMI

RESEARCH PROJECT

- Mentor and project established before you apply
- Selection of mentor and research project are key components of the application process
- Mentor may be an HHMI investigator or any other biomedical investigator



Medical Fellow Phil Pauerstein (right) with his mentor, HHMI investigator Dr. Seung Kim at Stanford University School of Medicine

SELECTING A MENTOR

- Seek advice from faculty and administration.
- Talk with several possible mentors.
- Confirm that the mentor has a
 - good publication record,
 - sustained external grant support, and
 - the time, interest and experience to train you.
- Talk with other trainees who have been in the lab you are considering.



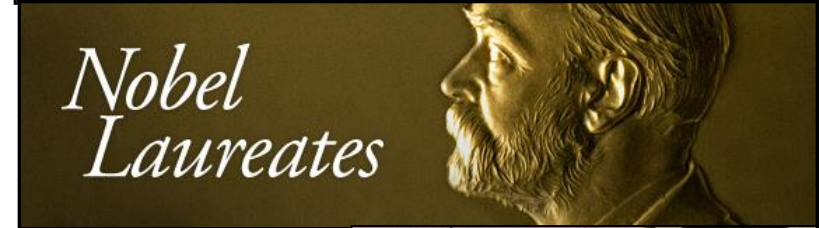
Medical Fellow Katie Cook and her mentor, HHMI investigator Elaine Fuchs at Rockefeller University

8 FUNDING PARTNERS

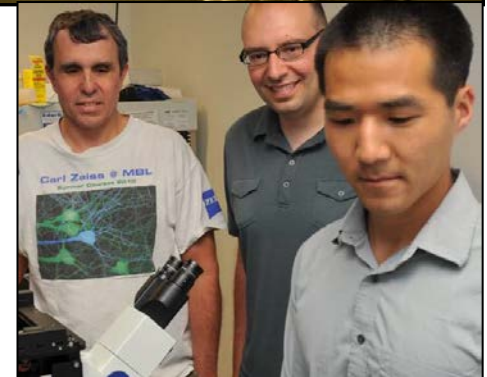
1. **Burroughs Wellcome Fund** supporting up to 2 veterinary students.
2. **Citizens United for Research in Epilepsy (CURE)** supporting up to 3 fellows in epilepsy research.
3. **Duchenne Research Fund** supporting up to 1 fellow studying Duchenne Muscular Dystrophy.
4. **Foundation Fighting Blindness** supporting up to 4 fellows doing research in inherited retinal degenerative diseases.
5. **K-RITH** supporting 2 fellows in HIV/AIDS or TB research in Durban, South Africa.
6. **Orthopaedic Research and Education Foundation (OREF)** for up to 1 fellow doing orthopaedic research.
7. **Parkinson's Disease Foundation (PDF)** for up to 1 fellow doing Parkinson's disease research.
8. **Society of Interventional Radiology Foundation** funding up to 1 fellow doing preclinical interventional radiology research.

MEDICAL FELLOWS AT JANELIA

- Live and work at HHMI's Janelia Research Campus in Ashburn, VA (near Washington, D.C.) for a year
- Use innovative and emerging technologies to research neuronal network function or imaging at the cellular and molecular level
- Two-step application process requiring:
 - Prescreening application due by November 2



2014 Nobel Laureate in Chemistry, Eric Betzig (left), co-mentor of 2011 Med Fellow Andrew Sung (right)



MEDICAL FELLOWS AT K-RITH

- Live in Durban, South Africa and work at the KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH) for a year
- Conduct research in HIV, TB or co-infection at the heart of the disease epidemics
- Two-step application process requiring:
 - Prescreening application due by November 2



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 MEDICAL RESEARCH FELLOWS PROGRAM

HHMI VALUE-ADDED BENEFITS

- Attend HHMI investigator science meeting (closed to the public)
- Gain career advice from HHMI physician-scientists
- Meet with renowned physician-scientists at professional meetings (e.g., AANS, ARVO, etc.)
- Take part in Med Fellows kick-off and regional meetings
- Benefit from multi-level mentoring by physician-scientists at end-of-year meeting
- Present your work at a scientific conference



MED FELLOWS COMMUNITY

- Share research victories and challenges with students who may have similar experiences in the lab
- Support and brain-storming network
- Establish enduring professional relationships and friendships



Med Fellows in the “neurosurgery group” at the 2015 Med Fellows end-of-year meeting

A LIFE-CHANGING EXPERIENCE!

“This program has been the **single most influential force** behind my now resolute desire to become a physician-scientist. I hope to stay involved in HHMI for the years to come as the caliber of scientist I've seen associated with the institute is unparalleled.” Adam Kundishora

“While my previous experiences piqued my interest in research, this program has significantly enhanced my **passion for research**, and has undoubtedly impacted my commitment to a career that includes research. Thank you for providing me the opportunity to be a part of this program!” Montreh Tavakkoli

“Honestly **the most rewarding year**, to be able to dedicate an entire year to immerse myself in a field of interest, and confirm my love for the basic sciences. I cannot thank the HHMI program enough, for allowing me to be part of such a collectively inspiring community of scientists and fellow students.” Lucy Cheng

“This without exaggeration has been **a life-changing experience**. The administrative support, the opportunities, the continual stream of inspiration, courage, and brilliance that comes from all directions - HHMI is incredible organization, and I am so thankful every day that I was lucky to be a part of this experience.” Brian Nuyen

“The Medical Fellows Program provided **the best year of my life**. It let me truly understand the approach a physician-scientist needs to generate a scientific impact in his or her career. The conference at Janelia was absolutely incredible. I have never been to any event where Nobel Prize winners and other scientific leaders were excited to sit down with me and discuss research and life.” Nick Murray

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MEDICAL RESEARCH FELLOWS PROGRAM

FINANCIAL SUPPORT

- Annual stipend of \$30,000
- \$5,500 fellow's allowance for medical, dental, and vision insurance, and education-related expenses
- \$5,500 research allowance for travel to scientific meetings, Med Fellows kick-off, regional meetings, end-of-year meeting, some research costs



LOAN DEFERMENT

- Some schools have special status to remain enrolled; fees vary per school
- Check with registrar and financial aid office
- HHMI can help complete deferment forms (request from your loan servicing center)

APPLICATION INFORMATION

- Application opens: end of August
- Deadline: **January 11**
- About 200 applications, 60-70 awards
- Must select mentor and write a research plan as part of the application process
- No interview (except for selected Janelia and K-RITH* applicants)
- External review panel of scientists
- Apply online: www.hhmi.org/medfellowships

* Janelia and K-RITH applicants selected for interviews will do in-person interviews at Janelia, or Skype interviews for K-RITH.

