



Doris Duke Malaria Research Fellowship



Application deadline: **March 11, 2011**

Exciting Opportunity for University of Maryland Medical Students!

Are you interested in a career in tropical medicine and global health? Would you like to gain hands-on research experience? Would you like to spend your summer in Africa? If you answered yes to any of these questions, read on to learn about the Doris Duke Malaria Research Fellowship!

Summer Research Fellowship

Selected fellows will devote at least 8 weeks during the summer to research training. These summer rotations can count as required laboratory rotations for MD/PhD students. Because students will have varying degrees of previous research and international experience, all will be required to spend at least 2-4 weeks in the Center for Vaccine Development Malaria Section in Baltimore being trained in molecular, bioinformatics or epidemiological data analysis before up to 6-8 weeks of clinical research training at either the Bandiagara Malaria Project in Mali, West Africa or the Blantyre Malaria Project in Malawi, Central Africa. Each student is expected to turn in a final report at the end of activities. All accepted applicants must carry his/her own health insurance.

Doris Duke fellows enrolled in the MPH program may be eligible for an additional three-month mentored research rotation, which will count as required Capstone Supervised Project. These rotations may be done entirely in the Malaria Section laboratories in Baltimore, entirely at one of the two clinical research sites in Africa, or more often will involve time both in the lab and in the field.

The program will provide the following:

- Stipend for living expenses (\$1,000 monthly)
- Roundtrip Airfare
- Required vaccinations and prescriptions
- Visa for travelers to Mali (Valid passports are travelers' responsibility)
- SOS Travel Insurance

Open to University of Maryland Medical Students

Preference will be given to:

- Students enrolled or planning to enroll in a dual degree program (MD/PhD or MD/MPH).

Selection Criteria

Applicants will be selected based on their academic and/or research credentials and perceived potential to become a successful clinical translational researcher. Prior international research experience is not required.

Malaria Section

In the Malaria Section we work on malaria drug resistance, molecular epidemiology, molecular evolution, pathogenesis, HIV-malaria interactions and clinical trials of malaria drugs and vaccines. We do laboratory and field research on the molecular mechanisms and molecular epidemiology of resistance to antimalarial drugs, particularly the antifolate drugs and chloroquine. Plasmodium falciparum malaria resistant to these drugs is already widespread in much of South America and Asia, and chloroquine resistance is responsible for large increases in malaria morbidity and mortality in Africa. Our team has developed rapid molecular assays for parasite mutations that cause the parasite to be resistant to specific drugs for use as public health tools for monitoring resistance in malaria-endemic areas. In collaboration with colleagues at the University of Mali, we have developed a field research site in the Dogon Country of Mali. This field station is the site of studies of drug resistance, pathogenesis and immunology of severe malaria, and clinical trials of malaria vaccines. In Malawi we work on clinical trials of malaria drugs, molecular epidemiology of drug resistant malaria and the impact of antimicrobial use on antimalarial drug resistance in persons living with HIV. We recently reported that chloroquine sensitive malaria had returned to Malawi 12 years after chloroquine was withdrawn. At the Center for Vaccine Development in Baltimore, we study the impact of genetic diversity on malaria drug and vaccine efficacy using high-throughput genotyping and

mathematical modeling. We work with scientists in Africa, Asia and South America to train junior scientists and build research capacity in malaria-endemic countries.

Doris Duke Charitable Foundation Background

Doris Duke, who was born on November 22, 1912 in New York City, was the only child of James Buchanan Duke, a founder of the American Tobacco Company and Duke Energy Company and a benefactor of Duke University in his native North Carolina. When J.B. Duke died in 1925, he divided his fortune between the Duke Endowment (a foundation he established to serve the people of the Carolinas) and his 12-year-old daughter.

Fascinated by different cultures, Doris Duke gathered countless treasures on her worldwide excursions and acquired remarkable collections of Islamic and Southeast Asian art. In addition to collecting art, she was a patron of the performing arts as well as a participant, actively exploring various art forms as a jazz pianist and composer, a student of modern dance, and a singer with a gospel choir in New Jersey.

Although Doris Duke lived a private life, she contributed to a number of public causes. She was an active supporter of medical research and child welfare throughout her life. When she was just twenty-one, she established a foundation called Independent Aid, which later became the Doris Duke Foundation.

Doris Duke died in October 1993 at the age of 80. In her will, she left the majority of her estate to the Doris Duke Charitable Foundation. In 2006 Dr. Christopher Plowe, Howard Hughes Medical Institute Investigator, Professor of Medicine and Chief of the Center for Vaccine Development's Malaria Section at the University of Maryland School of Medicine, was selected as a Doris Duke Distinguished Clinical Scientist. This award includes support for mentoring young physician-scientists-in-training through the Doris Duke Malaria Research Fellowship.

Application Instructions

Please submit an electronic copy and **Four (4) Hard Copies** of the application materials below (excluding the letter from Assistant Dean for Student Education and Research) in the specified order to the address at the end of this announcement:

- Demographics cover sheet for statistical purposes only. This will not be used for evaluation purposes.
- **One page** written statement describing your motivation for seeking this fellowship.
 - Why are you interested in malaria research?
 - Describe your short and long-term career objectives.
- Curriculum vitae including education, training, work experience, prior research experience if any, publications or abstracts, honors and awards.
- Letter from Assistant Dean for Student Education and Research summarizing the applicant's academic performance to date.

Please submit this information to:

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