Postdoctoral Fellowships in Malaria Gene Regulation

U.S. FOOD & DRUG ADMINISTRATION

PAINTER LABORATORY
Malaria Research Group
Division of Bacterial, Parasitic & Allergenic Products
Office of Vaccine Research & Review
Center for Biologics Evaluation Research
Silver Spring, Maryland, USA

The Laboratory of Dr. Heather Painter in the Division of Bacterial, Parasitic and Allergenic Products (DBPAP) in the Center for Biologics and Evaluation Research (CBER), at the White Oak, MD campus (Washington, DC Suburbs) of the Food and Drug Administration (FDA) is seeking two Postdoctoral Fellows to work on projects involving gene regulation of human malaria parasite, *Plasmodium falciparum*. This research will exploit the unique features of Plasmodium gene regulation to design vaccine intervention strategies. The dissection of these mechanisms will include the application of novel functional genomics approaches incorporating bioinformatics, next-gen sequencing technologies, biochemistry, and molecular biology including CRISPR/Cas9.

One selected fellow will perform experiments on the molecular characterization of the proteins involved in post-transcriptional regulatory mechanisms during various stages of parasite development. This is a pioneering project that seeks to define the global post-transcriptional regulatory processes involved in parasite transmission. The results of these studies will help establish the essential RNA-binding proteins that promote parasite development and lay the groundwork to identify novel targets for both chemotherapeutic or vaccine interventions. Experience in molecular biology, protein expression, and tissue culture is preferred.

One selected fellow will be responsible for bioinformatic design and implementation of computational pipelines for the analysis of bulk, targeted and and single cell RNAseq datasets. These datasets will be generated from the human malaria parasite at various stages of development, under different environmental conditions, and/or bound to proteins of interest. Experience with next-gen sequence analysis is essential. Prior use of Galaxy interface, Python, R, or Perl is preferred.

Appointment is for one year – full time. Extension eligible based on performance.

Amount of stipend will vary with degree and years of experience. A stipend for health, vision and dental insurance is included, as well as conference registration and travel allowance.

TO APPLY → please submit your application including a complete CV and the contact information for three references, a brief statement (1-2 pages) of research interests as well as a cover letter to Heather.Painter@fda.hhs.gov