Opportunity Title: FDA Postdoctoral Hepatitis Infection Fellowship
Opportunity Reference Code: FDA-CBER-2020-0042

Organization U.S. Food and Drug Administration (FDA)

Reference Code FDA-CBER-2020-0042

How to Apply ***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcripts – Click here for detailed information about acceptable transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Three educational or professional recommendations

All documents must be in English or include an official English translation.

If you have questions, send an email to ORISE.FDA.CBER@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 12/31/2020 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

A research opportunity is currently available with the Office of Blood Research and Review (OBRR), at the Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA) located in Silver Spring, Maryland.

Hepatitis A virus (HAV) causes acute hepatitis in humans. HAV is transmitted via the fecal-oral route, and infection is mainly due to ingestion of contaminated food and water or close contact with an infected individual. The current HAV outbreak that started in 2016 in the US resulted in 32,235 cases, 19,694 hospitalizations, and 324 deaths as of April 17, 2020 (https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm). Parenteral transmission of HAV can also occur by blood and blood products, which poses a significant risk to the safety of the blood supply. HAV infects cells via its cellular receptor 1 (HAVCR1), which has also been shown to be a cell entry factor for some enveloped viruses such as hepatitis C virus (HCV) and Ebola virus. We are interested in studying pathogenesis of HAV and the role of HAVCR1 in hepatitis.

Under the guidance of a mentor, the participant will train in classical virology, immunology, and molecular biology by characterizing HAV infection in plasma samples from infected individuals from the current US outbreak to understand markers of HAV infection. The goal of the study is to advance our current understanding of HAV pathogenesis, severity of disease, and protection using state-of-the art technologies to characterize viral load, liver enzyme elevations, cytokine storm, and role of per-existing antibodies in sterilizing immunity. The participant will also study the role of HAVCR1 alleles in severity of disease using molecular biology techniques and animal models.

Some recent publications describing work performed in the laboratory that the incumbent will expand include: Costafreda et al., Nature Microbiology 2020 (DOI:10.1038/s41564-020-0740-y); Kaplan et al., Nature Microbiology community 2020 (https://naturemicrobiologycommunity.nature.com/posts/viral-infection-by-exosome-mimicry-the-havcr1-npc1-pathway?channel_id=346-behind-the-paper); Costafreda et al., Journal of Virology 2018 (DOI:10.1128/JVI.02065-17); and Tejada-Strop et al., JAMA Internal Medicine 2017

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(10.1001/jamainternmed.2016.9057).

Anticipated Appointment Start Date: October 1, 2020

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and FDA. The initial appointment is for one year, but may be renewed upon recommendation of FDA contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at FDA in the Silver Spring, Maryland, area. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

Completion of a successful background investigation by the Office of Personnel Management is required for an applicant to be on-boarded at FDA. OPM can complete a background investigation only for individuals, including non-US Citizens, who have resided in the US for a total of three of the past five years.

FDA requires ORISE participants to read and sign their FDA Education and Training Agreement within 30 days of his/her start date, setting forth the conditions and expectations for his/her educational appointment at the agency. This agreement covers such topics as the following:

- Non-employee nature of the ORISE appointment;
- Prohibition on ORISE Fellows performing inherently governmental functions;
- Obligation of ORISE Fellows to convey all necessary rights to the FDA regarding intellectual property conceived or first reduced to practice during their fellowship;
- The fact that research materials and laboratory notebooks are the property of the FDA;
- ORISE fellow's obligation to protect and not to further disclose or use non-public information.

Qualifications

The qualified candidate should be currently pursuing or have received a doctoral degree in one of the relevant fields. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Basic training in classical virology, immunology, and molecular biology
- Understanding and/or experience with CRISPR/Cas knockout technologies
- Experience with PCR and quantitative PCR
- Experience with multicolor flow cytometry
- Basic training and experience in animal work and mouse models

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Environmental and Marine Sciences** (1 👁)
  - **Life Health and Medical Sciences** (45 👁)