Opportunity Title: FDA Post-baccalaureate Research Assistant Internship
Opportunity Reference Code: FDA-CBER-2022-33

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

Reference Code FDA-CBER-2022-33

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
- One educational or professional recommendation

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 12/31/2022 11:59:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis, and this opportunity will remain open until filled.**

Two research opportunities are available in the Division of Bacterial, Parasitic, and Allergenic Products (DBPAP), in the Office of Vaccines Research and Review (OVRR), at the Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA) in Silver Spring, Maryland.

Both projects focus on the innate response to viral infection by respiratory epithelial cells and the links between viral respiratory infections and asthma. Each successful candidate will be performing in vitro cell biology and gene transcription experiments, using standard immunobiochemical techniques to analyze signaling pathways, manipulating gene expression with siRNA and lentiviral constructs, and performing confocal microscopy and time lapse imaging for viral inhibition mechanistic studies. As a result of this training the participant will obtain or improve skills in cell biological and immunology research. Such skills include tissue culture, analysis of gene and protein expression, and fluorescent microscopy.

The first project, "Local control of respiratory syncytial virus (RSV) by respiratory epithelial cells," compares the innate immune response of two respiratory epithelial cell lines, one of which is permissive to infection by respiratory syncytial virus, and one that resists infection. The overall goals of the project are to define critical for local control of RSV infection of this virus. The candidate is referred to Hillyer et al. J Virol 2018 (PMID: 29769339).

The second project, “Impact of Allergens on the Innate Immune Response in Lung Epithelial Cells,” investigates how house dust mite (HDM) allergens

impact innate immune responses to human rhinovirus (HRV). We have shown that HDM proteins impair the antiviral response to HRV in respiratory cell lines. The goals of this project are to identify responsible HDM protein(s) and define the mechanism of inhibition.

Anticipated Appointment Start Date: June 14, 2022; start date is flexible

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 have received a bachelor's degree in one of the relevant fields, or be currently pursuing the degree with completion by June 14, 2022. Degree must have been received within five years of the appointment start date.

Preferred Skills:

- Experience in a biological research laboratory, particularly with tissue culture, western blot, qRT-PCR and other cell biological techniques
- Experience in cell culture, virological, or biochemical methods (e.g. SDS-PAGE, western blot, biochemical assays).
- Immunological skills (immunohistochemistry, flow cytometry)
- Experience in bioinformatic analysis
- Good interpersonal communication skills and ability to collaborate in a team environment

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree received within the last 60 months or anticipated to be received by 6/14/2022 11:59:00 PM.
- **Overall GPA:** 3.00

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- **Discipline(s):**
  - **Engineering** (27 👁)
  - **Life Health and Medical Sciences** (48 👁)

Affirmation Have you lived in the United States for at least 36 out of the past 60 months? (36 months do not have to be consecutive.)