Opportunity Title: FDA Investigation of Pathways Governing Early Age Innate Immune Response to Vaccines
Opportunity Reference Code: FDA-CBER-2026-0080

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

Reference Code FDA-CBER-2026-0080

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.

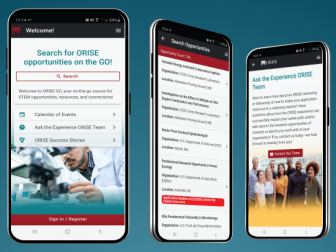
Application Deadline 1/1/2027 3:00:00 PM Eastern Time Zone

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

FDA Office and Location: A research opportunity is currently available in the Office of Vaccine Research and Review (OVRR) at the Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA) in Silver Spring, Maryland.

Research Project: This project will investigate early age host immune responses to vaccines using a neonatal mouse model. Both human and mouse neonates and infants are known to respond poorly to vaccines, including the protein conjugated polysaccharide vaccines regulated by the Laboratory of Bacterial Polysaccharides (LBP). Most pediatric vaccines need to be administered three to four times during the first 15 months of life in order to elicit long lasting protective immune response. The infants remain poorly protected until they complete the four doses. Our laboratory investigates the underlying cellular and molecular pathways responsible for suboptimal vaccine responses in early age. In this project, you will focus on the role of neonatal mouse macrophages and dendritic cells (DCs) in activating CD4+ T cells since these cells are involved in the generation of antibody responses following vaccination. Relevant publications: PMID: 42506666, PMID: 37938563, PMID: 41399502, PMID: 30619375.

Learning Objectives: Under the guidance of a mentor, you will focus on whether the CD4+ activation by macrophages and DCs changes when the experiments are conducted in neonatal vs adult serum. Collectively, you will have a chance to dissect the relative contribution of neonatal vs adult

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environmental factors (serum) in dictating age-specific phenotypes of innate cells such as macrophages and DCs during vaccine responses and collaborate with other lab members who are also investigating the neonatal immune response to vaccines by focusing on adaptive immune system. You will attend LBP and DBPAP seminars and present your findings with the wider FDA audience. You will also participate in training activities such as Immunology workshop organized by NIH Immunology Interest group and have the opportunity to present your findings at a national/international vaccine/immunology meeting.

Mentor: The mentor for this opportunity is Mustafa Akkoyunlu (Mustafa.Akkoyunlu@fda.hhs.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: January 4, 2027. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of FDA and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens only and Legal Permanent Residents (LPRs).

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 participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. 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 Ethics Requirements

If an ORISE Fellow, to include their spouse and minor children, reports what is identified as a Significantly Regulated Organization (SRO) or prohibited investment fund financial interest in any amount, or a relationship with an SRO, except for spousal employment with an SRO, and the individual will not voluntarily divest the financial interest or terminate the relationship, then the individual is not placed at FDA. For additional

requirements, see FDA Ethics for Nonemployee Scientists.

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 the past five years.

Point of Contact Richard

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (51 👁)
- **Age:** Must be 18 years of age

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