Opportunity Title: Postdoctoral Fellowship in Blood Platelet Research - FDA CBER
Opportunity Reference Code: FDA-CBER-2019-0008

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

Reference Code FDA-CBER-2019-0008

How to Apply 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. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

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 4/1/2019 3:00:00 PM Eastern Time Zone

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

CBER is the Center within FDA that regulates biological products for human use under applicable federal laws, including the Public Health Service Act and the Federal Food, Drug and Cosmetic Act. CBER protects and advances the public health by ensuring that biological products are safe and effective and available to those who need them. CBER also provides the public with information to promote the safe and appropriate use of biological products.

This project is focused on cellular and molecular aspects of new methods of long term storage of blood platelets for transfusion. Platelets for transfusion can only be stored for 5 to 7 days. Platelet cryopreservation would improve platelet availability in remote locations and military operations and building a platelet inventory for refractory patients. The state of the art platelet cryopreservation method uses 6% dimethylsulfoxide (DMSO) as a cryoprotectant. Platelets, however, undergo major damage during DMSO-cryopreservation, including membrane transition and release of different populations of platelet membrane vesicles. Content and activities of platelet membrane vesicles in DMSO cryopreserved platelets (CPP) may significantly impact safety and efficacy of CPP. The proposed project is focused on development and optimization a panel of assays for characterization and in vitro potency for quality control of CPP products. In addition, the project will investigate cryoprotective effects of various novel cryoprotectants including engineered nanomaterials for platelet cryopreservation.

The research participant will gain theoretical knowledge in platelet biology and platelet transfusion science, including current methods of platelet processing and storage and needs for long term platelet storage. Under the guidance of a mentor, the participant will also gain theoretical knowledge and practical experience in laboratory assays for evaluation of quality of platelets for transfusion, characterization of platelet membrane vesicles, and other membrane changes in platelets stored for transfusion and new methods of platelet cryopreservation.

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

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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, MD, area. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

The Homeland Security Presidential Directive-12 (HSPD-12) mandates a background check be completed for both U.S. Citizens and foreign nationals. Foreign nationals must have resided in the U.S. for at least three (3) of the past five (5) years in order for FDA to be able to complete a background check.

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 doctoral degree in the relevant fields.. Degree must have been received within five years of the appointment start date.

Laboratory experience in biomedical research, bench work skills in cell biology, cryobiology, or membrane biophysics is preferred.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (2 👁)
  - **Life Health and Medical Sciences** (9 👁)