**Opportunity Title:** FDA Postdoctoral Fellowship - Predicting the Safety and Efficacy of Cell-Based Regenerative Medicine Products Using Systems Developmental Biology
**Opportunity Reference Code:** FDA-CBER-2026-0054

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

**Reference Code** FDA-CBER-2026-0054

**How to Apply** ***To submit your application, scroll to the bottom of this opportunity and click 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

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** 1/18/2027 3:00:00 PM Eastern Time Zone

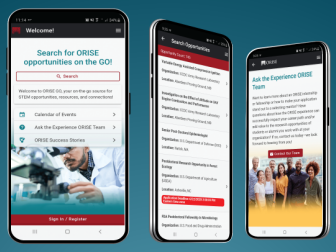
**Description** ***Applications will be reviewed on a rolling-basis.**

**FDA Office and Location:** A research opportunity is currently available with the Center for Biologics Evaluation and Research (CBER), U.S. Food & Drug Administration (FDA) in San Diego, California and then Silver Spring, Maryland.

The Center for Biologics Evaluation and Research (CBER) is one Center within the Food and Drug Administration, an Agency within the United States Government's Department of Health and Human Services. CBER's mission is to protect and enhance the public health through the regulation of biological and related products including blood, vaccines, allergenics, tissues, and cellular and gene therapies.

**Research Project:** We have established that the matricellular protein Secreted Modular Calcium-binding protein (SMOC) is absolutely required for vertebrate neurogenesis. Knock-down of the protein in Xenopus embryos causes complete developmental arrest immediately prior to neurulation. Treatment of naïve Xenopus ectoderm with recombinant SMOC protein induces neural transcripts within 2 hours. We have also shown that SMOC blocks Bone Morphogenetic Protein signaling downstream of the receptor and inhibits canonical Wnt signaling. Manipulation of both these pathways is common in protocols to generate neural cells from hESCs or IPSCs. However, these effects have not been replicated in human cells. The research objectives for this project are

1. To identify the mammalian neural progenitor intermediate stage(s) responsive to SMOC,
2. Evaluate the utility of SMOC in generation of therapeutically useful

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neural cells and;
3. Further elucidate the SMOC signaling pathway.

**Learning Objectives:** Under the guidance of a mentor, you will have the opportunity to:

1. Understand the relationship between biological properties of a cell population and Critical Quality Attributes (CQAs) suitable for defining a therapeutic cell product.
2. Develop expertise in wet-bench analytical biochemistry methods suitable for identifying the biological properties/CQAs in item 1, which may include population average and single-cell RNAseq, ATACseq, methylation analysis, and others.
3. Develop expertise in computational/bioinformatic techniques likely to be needed to identify attributes evaluated using the methods in item 2.
4. Develop written and oral presentation skills to communicate findings at national scientific meetings or suitable for publication in first tier scientific journals.

**Mentor:** The mentor for this opportunity is Malcolm Moos (malcolm.moos@fda.hhs.gov). If you have questions about the nature of the research, please contact the mentor.

**Anticipated Appointment Start Date: 2026.** 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 and Lawful Permanent Residents (LPR) only.

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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.

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**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 have received or be currently pursuing a doctoral degree in one of the relevant fields. Degree must have been received within the past five years, or be currently pursuing.

**Point of Contact** Richard

**Eligibility Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (51 👁)

**Affirmation** I am a U.S. citizen, or 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.)
and
I have read the FDA Ethics Requirements.