A research opportunity is available in the Division of Bacterial, Parasitic and Allergenic Products (DBPAP), 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.

This project is aimed at evaluating the use of bacteriophage to treat Staphylococcus aureus colonization and/or disease in order to better combat multi-antibiotic-resistant bacterial pathogens. A major goal of this project is to establish and utilize animal models to investigate the potential of phage treatment against S. aureus to decolonize the upper respiratory tract and/or to treat S. aureus infections. However, other aspects will delve into aspects of the genetics of bacteriophage that are relevant to their deployment in these contexts. These include genetic mechanisms of bacterial resistance to phage and mechanisms of phage adaptation to infect different or new hosts. Under the guidance of a mentor, the participant will be involved with the following project activities: animal models of infection and phage treatment, isolation of mutant bacterial and bacteriophage strains, genetic engineering of bacterial and bacteriophage strains, isolation of bacteriophage from natural sources, next generation DNA sequence analysis.

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, MD, 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.
**Opportunity Title:** Bacteriophage Therapy: Staphylococcus Aureus - FDA CBER  
**Opportunity Reference Code:** FDA-CBER-2019-0019

**Qualifications**  
The qualified candidate should have received a bachelor's or master's degree in one of the relevant fields, or be currently pursuing one of the degrees and will reach completion by December 31, 2019. Degree must have been received within five years of the appointment start date.

Preferred skills/experience:

- Previous laboratory experience
- Interest in Microbiology
- Basic microbiological techniques - preparation of growth media and propagation of bacterial strains
- Basic DNA cloning techniques - preparation of plasmid DNA, PCR, restriction and ligation, and transformation
- Basic electrophoresis techniques - agarose gels for DNA and acrylamide gels for proteins
- Experience working with laboratory animals

**Eligibility Requirements**

- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or anticipated to be received by 12/31/2019 11:59:00 PM.
- **Discipline(s):**
  - Life Health and Medical Sciences (7 ☐️)