Opportunity Title: Research Fellow- Investigation of Cellular Transcriptomic Changes
Opportunity Reference Code: CCDC-CBC-2021-0001

Organization U.S. Department of Defense (DOD)

Reference Code CCDC-CBC-2021-0001

How to Apply Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click here for detailed information about acceptable transcripts.
- While a letter of recommendation is not required to be considered, applicants are required to provide contact information for one recommendation in order to submit the application. Applicants are encouraged to request a letter of recommendation before submission as this may help reviewers have a better understanding of the applicant's qualifications and interests. If selected, a letter of recommendation must be submitted on your behalf upon acceptance of the appointment.

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to ARMY-RDECOM@orise.orau.gov. Please list the reference code of this opportunity in the subject line of the email.

All documents must be in English or include an official English translation.

Description The U.S. Army Combat Capabilities Development Command - Chemical Biological Center (CCDC-CBC) is the primary Department of Defense technical organization for non-medical chemical and biological defense. CCDC-CBC provides extraordinary capabilities against emerging biological and chemical threats by merging intelligence assessments with its world-renowned chemistry, biology, physiology, and engineering expertise at every stage of the acquisition life cycle. Providing a unique blend of distinguished scientists and engineers for the research and development of innovative technological solutions, CCDC-CBC strives to solve chemical and biological defense threats to our nation—both abroad and on the homeland.

As an ORISE participant, you will participate in research focusing on the evaluation and characterization of molecular changes to the transcriptome utilizing RNA-seq and Next-Generation sequencing equipment. During your appointment, you will use standard microbiological techniques to perform RNA extractions on cells, prepare RNA libraries, and execute RNA library sequencing utilizing the Illumina NextSeq. Under the guidance of a mentor, you will collect and analyze primary data using data-capture forms and the Laboratory Information Management System (LIMS) to make preliminary assessments and perform molecular biology techniques, including nucleic acid extractions and DNA/RNA library preparations and genomic sequencing methodology.

Additional learning objectives include:

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- Extract nucleic acid and prepare for sequencing.
- Collaboratively plan, develop, and implement experiments and protocols.
- Troubleshoot assays and adjust scientific methodology to correct problems or deficiencies in a research project, experiment, or trial.
- Maintain thorough and complete government-owned records of experiments, standard operating procedures (SOPs), and data in hard copy laboratory notebooks, as well as in electronic versions made available to the PI and other individuals in the laboratory
- Read current literature (journal articles) that pertains to the research being conducted to aid in technique development and experimental design
- Prepare results and write and edit publications for submission to peer-reviewed scientific journals
- Summarize progress for presentation at Laboratory and Division meetings and research conferences.

This appointment is a twelve-month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Participant Benefits

Participants will receive a stipend to be determined by CBC. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. *Participants are eligible to purchase health insurance through ORISE.*
- Training and Travel Allowance

Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications The preferred candidate will have experience or skills related to:

- microbiology / molecular biology
- technical writing
- time management and attention to detail
- working in a laboratory environment
- operating under Good Lab Procedures
- execution of basic and advanced laboratory procedures such as RNA/DNA extraction and sequencing
- maintaining accurate and detailed records
- proper laboratory disposal methods and safety procedures

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**

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- **Environmental and Marine Sciences** (1 👁)
- **Life Health and Medical Sciences** (11 👁)