

Opportunity Title: Bench-scale Fermentation Optimization Summer Undergraduate Internship at DEVCOM-CBC
Opportunity Reference Code: DEVCOM-CBC-2023-0003

Organization U.S. Department of Defense (DOD)

Reference Code DEVCOM-CBC-2023-0003

How to Apply Click on *Apply* at the bottom of the opportunity to start your application.

Description The Department of Defense (DoD) is offering undergraduate summer internships at the U.S. Army Combat Capabilities Development Command Chemical Biological Center (DEVCOM CBC).

What will I be doing?

As an ORISE participant, you will join a community of scientists and researchers in an effort to gain insight into the use of genetic engineering to produce synthetic strains of yeast and other microbes, optimize growth and purification conditions, and ultimately increase the production of compounds of interest.

Why should I apply?

Under the guidance of a mentor, you will gain hands-on experience to complement your education and support your academic and professional goals. During your appointment, you will engage in activities and research in several areas. These include, but are not limited to:

- Culture media and growth optimization of genetically engineered organisms
- Implementation Design of Experiments (DOE) statistical methods
- Bench scale fermentation of genetically engineered organisms up to the 1 L scale
- Analytical techniques including HPLC, LC-MS, and GC-MS

Throughout your participation, you will have the opportunity to advance your general molecular biology skills, scientific communication, methods development, presentation and communication skills. In addition, you will collaborate with a diverse team of researchers with the common goal of harnessing synthetic biology and biomanufacturing to produce critical chemicals and precursors in the newly modernized DEVCOM CBC Biomanufacturing Pilot Scale facility. Knowledge gained through this appointment can be transferred to medium- and large-scale fermentation efforts.

Where will I be located?

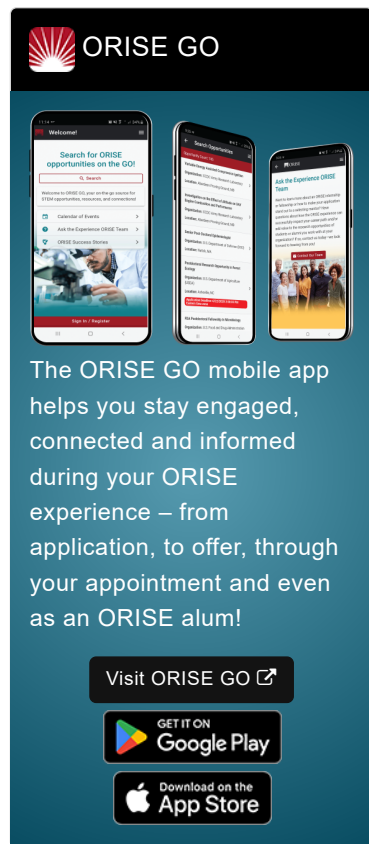
Edgewood, Maryland

What is the anticipated start date?

June 2023. Applications are reviewed on an ongoing basis and internships or fellowships will be filled as qualified candidates are identified.

What is the appointment length?

This appointment is a three-month research appointment, with the possibility to be renewed for additional research periods. Appointments may



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be extended depending on funding availability, project assignment, program rules, and availability of the participant.

What are the benefits?

You will receive a stipend to be determined by DEVCOM-CBC. Stipends are typically based on a 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*)
- Relocation Allowance
- Training and Travel Allowance

About DEVCOM CBC

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) activities at the Edgewood portion of Aberdeen Proving Ground, Maryland, provide an extraordinary capability 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. We provide a unique blend of distinguished scientists and engineers for the research and development of innovative technological solutions to solve chemical and biological defense threats to our nation—both abroad and on the homeland.

About ORISE

This program, administered by Oak Ridge Associated Universities (ORAU) through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the [ORISE Research Participation Program at the U.S. Department of Defense](#).

Qualifications The qualified candidate will be currently pursuing a bachelor's degree.

Application Requirements

A complete application consists of:

- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the

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opportunity)

- Resume (PDF)
- Transcripts/Academic Records - Please upload a copy of a transcript for your current or most recent degree program that meets the disciplinary qualifications of the opportunity. [Click here for detailed information about acceptable transcripts.](#)
- One Recommendation. Your application will be considered incomplete and will not be reviewed until one recommendation is submitted. We encourage you to contact your recommender as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application.

If you have questions, send an email to ARMY-RDECOM@orise.orau.gov. Please list the reference code of this opportunity DEVCOM- CBC-2023-0002 in the subject line of the email. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the "Apply" button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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!

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Currently pursuing a Bachelor's Degree.
 - **Discipline(s):**
 - Engineering ([1](#) )
 - Life Health and Medical Sciences ([4](#) )