

**Opportunity Title:** Post-Doctorate Materials Research at DEVCOM- Chemical Biological Center

**Opportunity Reference Code:** DEVCOM-CBC-2022-0005

**Organization** U.S. Department of Defense (DOD)

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

**Description** The Department of Defense (DoD) is offering a post-doctoral fellowship at the U.S. Army Combat Capabilities Development Command - Chemical Biological Center (DEVCOM-CBC) within the Research & Technology (R&T) Directorate / Protection and Decon. Division / Respiratory Protection Branch.

#### What will I be doing?

As an ORISE participant, you will join a community of scientists and researchers conducting research and development of novel Chemical, Biological, Radiological, Nuclear (CBRN) Personal Protective Equipment (PPE) materials. You will participate in a cross functional team focused on the investigation and advanced application of novel elastomers, plastics, composites, textiles, and other material blends to enhance respiratory, ocular and percutaneous protective equipment. Under the guidance of a mentor, you will conduct laboratory research related to polymer/materials synthesis, as well as determine both materials and engineering solutions to problem sets related to CBRN PPE.

#### Why should I apply?

During your fellowship, you will gain hands-on experience to support your academic and professional goals. Along the way, you will engage in activities and research in several areas. These include, but are not limited to:

- Interacting with unique materials systems from bench-level conceptualization all the way through to early scaling efforts
- Learning techniques relevant to development of chembio protective systems, including characterization of transport through complex polymer systems, application of advanced polymer network theory to new materials, and unique analysis and measurement techniques, such as x-ray absorption, fine structure and ultra small angle x-ray scattering
- Learning about product development, design for needs, lifecycle analysis, and project management
- Collaborating on a team with diverse backgrounds, skill sets, and experience levels and learning how to leverage different perspectives to produce the best possible solution to a given problem set

#### Where will I be located?

Edgewood, Maryland

#### What is the anticipated start date?

DEVCOM-CBC is ready to make appointments immediately. Exact start dates will be determined at the time of selection and in coordination with the selected candidate. Applications are reviewed on an ongoing basis and internships or fellowships will be filled as qualified candidates are identified.



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#### **What is the appointment length?**

Appointments are initially for one year with the option to extend the appointment for up to four additional years, contingent upon project needs and funding availability.

#### **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 Research and Technology (R&T) Directorate operates within the U.S. Army Combat Capabilities Development Command Chemical Biological Center (CCDC Chemical Biological Center). R&T has more than 400 employees, including more than 100 PhD staff members, with chemistry, biology, physiology and engineering expertise. The R&T Directorate specializes in the research and development of innovative technological solutions to solve chemical and biological defense threats to our nation—both abroad and on the homeland. R&T is funded by many government and private-industry agencies for scientific research and development work, including the Department of the Army. For more information about the DEVCOM-CBC, please visit <https://www.cbc.devcom.army.mil/>.

#### **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 have a Ph.D. in materials science, chemistry, polymer engineering, polymer science, materials engineering, or related field of study. Degree must have been received within five years of the appointment start date.

Highly competitive applicants will have education and/or experience in one or more of the following:

- applied research efforts related to novel CBRN PPE materials
- polymer fiber spinning (synthetic and biological), polymer networks, polymer gels, transport through polymeric systems, neutron scattering, x-ray

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scattering, and polymer structure-property relationships

- biological polymer systems, characterizing and designing for interaction between polymers and biological materials, selecting for biocompatibility, and biodefense

#### **Application Requirements**



A complete application consists of:

- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the 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. Recommender 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](mailto:ARMY-RDECOM@orise.orau.gov). Please list the reference code of this opportunity DEVCOM-CBC-2022-0005 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:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (3 )
  - **Engineering** (2 )