

**Opportunity Title:** Molecular Technician

**Opportunity Reference Code:** APHC-2019-0008

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

**Reference Code** APHC-2019-0008

**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 - [Click here for detailed information about acceptable transcripts](#)
- Recommendation(s)

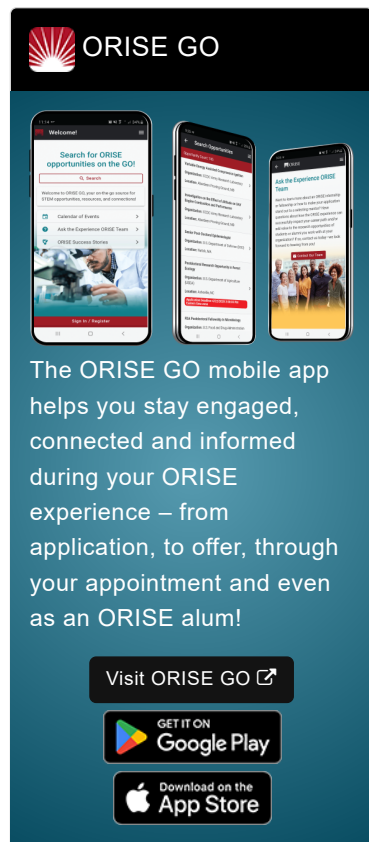
Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blacked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to [ARMY-PHC@orise.orau.gov](mailto:ARMY-PHC@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 Army Public Health Center (APHC) is located on Aberdeen Proving Ground South (Edgewood Area). The APHC mission is to enhance Army readiness by identifying and assessing current and emerging health threats, developing and communicating public health solutions, and assuring the quality and effectiveness of the Army's Public Health Enterprise. Their vision is to be a world-class provider of public health services across the Army and DOD. For more information about APHC please visit <https://phc.amedd.army.mil>.

The Army Public Health Center is striving to develop and foster a collaboration between the Methods Development Branch (MDB), Laboratory Sciences, and the Entomological Sciences Division (ESD), to establish assays for the detection of knock down resistance (KDR) alleles in field collected mosquito populations using PCR techniques. With support from the mentor the participant will assist with establishing and implementing KDR testing capabilities in support of field collections aimed at characterizing the insecticide resistance status of mosquito populations on installations. This will entail learning the assays currently being adopted from the Navy Entomology Center or Excellence, USDA Center for Medical, Agricultural and Veterinary Entomology detachment, and designing protocols to run on MDB equipment. The participant will also expand the KDR assay to include other mosquito genera as appropriate. This will entail literature reviews and data analyses to develop new primer-probe sets that are capable of targeting KDR alleles in the targeted genera. Once established, the participant will be able to test field collected samples, collating and analyzing data, and integrating the information within the broader entomological surveillance data system currently being developed at the ESD. As time allows, the participant will have the opportunity to also participate in CDC bottle assays to determine insecticide phenotypes of field collected mosquitoes and establish installation level diagnostic doses for targeted insecticides. Supporting insect rearing activities may also be required and taught in support of the Pesticide resistance mission. It is anticipated that the roll out of this program (targeting four installations) will result in the opportunity for peer-reviewed publications for motivated participants. Additionally, this project holds the potential to be expanded into the adoption of DNA barcoding technology for molecular identification of field collected mosquitoes and will be a follow-on project



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as we continue to build our pesticide resistance program support capabilities.

**Appointment Length**

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 APHC. 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.
- Relocation Allowance
- 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.

**Additional Information**

While participants will not enter into an employment relationship with DOD or any other agency, this opportunity will require a suitability investigation/background investigation. Any offer made is considered tentative pending favorable outcome of the investigation.



**Qualifications** Formal training in mosquito biology and control (experience or classroom instruction)  
Preferred experience with: PCR and/or CDC bottle assay for detecting resistance to pesticides in insects, DNA barcoding technology, vector-borne disease surveillance

- Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
  - **Degree:** High School Diploma/GED, Associate's Degree, Bachelor's Degree, or Master's Degree received within the last 60 months or currently pursuing.
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([12](#) )
    - **Communications and Graphics Design** ([2](#) )
    - **Computer, Information, and Data Sciences** ([16](#) )
    - **Earth and Geosciences** ([21](#) )
    - **Engineering** ([27](#) )
    - **Environmental and Marine Sciences** ([14](#) )
    - **Life Health and Medical Sciences** ([45](#) )
    - **Mathematics and Statistics** ([10](#) )
    - **Other Non-Science & Engineering** ([2](#) )
    - **Physics** ([16](#) )

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- **Science & Engineering-related** ([1](#) )
- **Social and Behavioral Sciences** ([27](#) )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).