

Opportunity Title: Analytical Chemistry Research Opportunity
Opportunity Reference Code: ARS-CMAVE-2016-0081-02

Organization U.S. Department of Agriculture (USDA)

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**How to Apply** A complete application package consists of:

- · An application
- Transcript(s) 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation.
- A current resume/CV

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

## Description

A postgraduate research opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Imported Fire Ant and Household Insects Research Unit (IFAHIRU) in Gainesville, Florida.

The required research involves analytical, organic, and biochemical chemistry as applied to insect related chemistry and chemical ecology – specifically fire ants and other invasive ant species. The research relates to specific Unit projects and projects funded by outside sources.

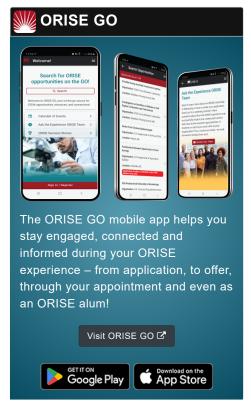
The appointment is part-time for one year and may be renewed based upon recommendation of the ARS and availability of funding. The annual stipend rate for this opportunity is \$22,000. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. The participant will not enter into an employee/employer relationship with ORISE, ORAU, USDA, 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.

While participants will not enter into an employment relationship with ARS, this opportunity requires a pre-employment check and a full background investigation.

This opportunity is available to U.S. citizens.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, religion, sex, sexual orientation, gender identity, national origin, mental or





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physical disability, covered veteran's status or genetic information.

For more information about the ARS Research Participation Program, please visit the **Program Website**.

#### Qualifications

To be eligible, applicants must have received a bachelor's degree in Chemistry (preferred) within five years of the desired starting date. The successful applicant will possess knowledge of the principles and methods of organic/analytical chemistry. Experience in chemical ecology and/or formal training in chemistry is desirable.

# Participant must be able to:

- Carry out standard techniques and assist in development of new techniques for the delivery, extraction, identification, or manipulation of potential bioactive compounds in the laboratory.
- As needed maintain a variety of instruments, including: gas chromatographs, Varian and Agilent(GC), GC-Mass spectroscopy (GC-MS) (Varian Saturn, Agilent) or FID detectors, and Agilent HPLC with variable wavelength UV/Vis and Mass Selective detectors.
- Tentatively identify volatile compounds from insects with a variety of chromatography procedures including: gas chromatography (GC), GC-MS or FID detectors and column chromatography, including gravity, TLC, and HPLC).
- Maintain detailed records of all research activities and provide written summaries, publishable GC trace figures, and appropriate statistical data analysis to Mentor.

## Preferred skills include:

- Knowledge of the principles of scientific methodology and skill in their application.
- Skill and/or experience in the use of analytical equipment including, but not limited to: UV/VIS spectrophotometer, gas chromatography (GC), GC-Mass spectroscopy, liquid chromatography, thin layer chromatography.
- Skill in the use of statistical/graphing software, e.g. Excel, for data analysis.

# Eligibility Requirements

- Citizenship: U.S. Citizen Only
- Degree: Bachelor's Degree.
- Discipline(s):
  - Chemistry and Materials Sciences (2 ◆)

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∘ Life Health and Medical Sciences (1 ●)

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