

Opportunity Title: Postdoctoral Research Opportunity in Whitefly-Virus-Plant Interactions

Opportunity Reference Code: ARS-USVL-2018-542-0006

Organization U.S. Department of Agriculture (USDA)

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How to Apply A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional references

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

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

Description A research opportunity is available with the the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), U.S. Vegetable Laboratory (USVL) in Charleston, South Carolina.

This research project is being conducted to decipher molecular mechanisms involved in whitefly-virus-plant interactions and to develop novel biotechnology tools that are capable of managing whiteflies and whitefly-transmitted viruses in vegetable crops. The participant will assist on research to: 1) Identify and characterize genomics and genetics factors in whiteflies that facilitate efficient virus transmission from whiteflies to plants that contributes to viral diseases in vegetable crops, 2) Develop novel genomics-based biotechnologies that would impede virus acquisition and transmission from whiteflies to plants, and 3) Investigate bio-based whitefly management strategies, such as plant genetic resistance and biological controls, that might be employed to decrease threats from whiteflies and associated viruses. In conducting these activities, the participant will use multi-disciplinary methods including genomics and other omics-based tools, insect genetics, plant tissue cultures, analytical and biochemical methods, next generation sequencing, molecular marker development, and molecular and conventional cytogenetics. The participant will be invited to travel to participate in subject relevant conferences and workshops as feasible.

This program, administered by 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 ARS. The initial appointment is for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds. The participant will receive a yearly stipend of \$62,965 as well as a monthly health insurance stipend supplement. Proof of health insurance is required for participation in this program. The appointment also includes a travel allowance of \$3,000 per year to reimburse travel-related expenses to scientific and professional development activities. Funding is not available for relocation expenses. The appointment is full-time. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits.

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

This opportunity is available to U.S. citizens, legal permanent residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details](#) page of the program website for information about the valid immigration statuses that are acceptable for program participation.

For more information about the ARS Research Participation Program, please visit the [Program Website](#).

Qualifications All candidates should have recently graduated (within last 5 years) with a doctorate degree in Entomology,

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Plant Pathology or Biology-related disciplines.

Preferred Skills:

Skills and/or experiences in entomology and plant virology.

Skills and/or experiences in working under aseptic conditions for cell and tissue culture and plant transformation.


Skills and/or experiences in growing plants.

Skills and/or experiences in genomics, biotechnology, molecular and cell biology.

Skills and/or experiences in plant genetics, plant biochemistry, plant pathology.

Skills and/or experiences in bioinformatics used in genomic analysis.

**Eligibility
Requirements**

- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
 - **Life Health and Medical Sciences** (10 )