

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Plant

Virology/Nematology

Opportunity Reference Code: USDA-ARS-2022-0045

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2022-0045

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A complete application 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. All transcripts must be in English or include an official English translation. 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 recommendations

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

Application Deadline 4/30/2022 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis and this posting could close before the deadline.

ARS Office/Lab and Location: A research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) located in Corvallis, Oregon.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: This research project aims to develop new sensitive molecular technologies to detect plant pathogenic viruses in nematodes. These tools will then be used to determine the distribution of viruses and plant-parasitic nematodes in small fruit fields of the Pacific Northwest and to conduct experiments to explore the epidemiology of this disease complex. The project integrates virology, nematology, molecular biology, and computational biology. The project may result in new ways to detect nematode vectored viruses and lead to methods for virus



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exclusion or management in small fruit crops.

Under the guidance of the mentor, the research participant may develop novel molecular assays to detect viruses in nematodes. Once the tools are developed, the research participant will then design in collaboration with the mentor and other scientists to design experiments to address the occurrence, distribution and epidemiology of the disease complex. Research goals will be achieved by the participant through laboratory, greenhouse, and field studies. Under the guidance of the mentor, the research participant is expected to publish and present results to the scientific community and stakeholders.

Learning Objectives:

- Develop advanced molecular skills and gain a deeper understanding of the science related to virology and nematology.
- Gain experience collecting, compiling, and analyzing literature.
- Learn how to conduct collaborative research that involves several scientific disciplines and experimental venues including laboratory, greenhouse, and field components.
- Publish results of literature analysis in the peer reviewed literature and present findings at public meetings and/or conferences.

Mentor(s): The mentor for this opportunity is Inga Zasada (Inga.zasada@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: Spring/Summer 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant(s) will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful 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.

ORISE Information: 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. Participants do not become employees of USDA, ARS, DOE or the

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program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email USDA-ARS@orau.org and include the reference code for this opportunity.




Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields.

Preferred skills and experience:

- training in plant virology
- protein and nucleic acid isolation
- recombinant DNA methodology
- polymerase chain reaction techniques
- serological techniques
- DNA and RNA extraction and analysis
- PCR/RT-PCR applications
- cloning
- DNA sequencing and sequence comparisons
- interpretation of data

Excellent writing and oral communication skills documented by publications are expected.

**Eligibility
Requirements**

- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Communications and Graphics Design** (1 )
 - **Computer, Information, and Data Sciences** (2 )
 - **Life Health and Medical Sciences** (19 )