

**Opportunity Title:** USDA-ARS Health Promoting Potential of Citrus Hybrid

Extracts

**Opportunity Reference Code:** USDA-ARS-SEA-2025-0189

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-SEA-2025-0189

**How to Apply** *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

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. 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.

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**Application Deadline** 2/13/2026 3:00:00 PM Eastern Time Zone

**Description** \*Applications are reviewed on a rolling-basis.

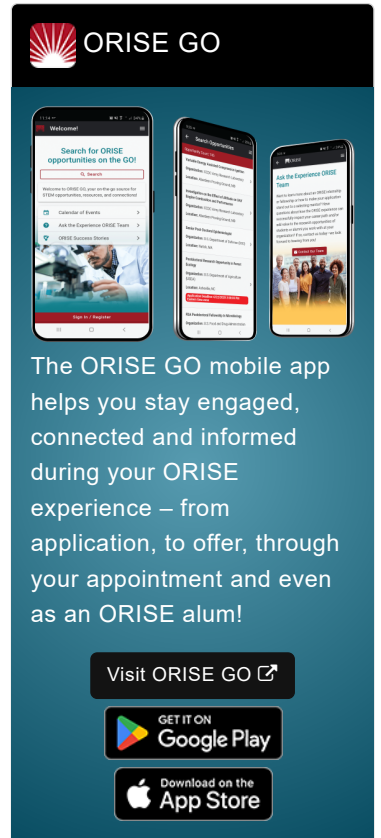
**ARS Office/Lab and Location:** A postdoctoral research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) located in the Microbiome and Metabolism Research Unit (MMRU) in Little Rock, Arkansas for the first portion of the fellowship and then located in the Citrus and Other Subtropical Products Research Unit in (COSPRU) Fort Pierce, Florida for the second portion of the fellowship.

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.

This postdoctoral research intern opportunity is part of a collaboration between the MMRU, the COSPRU and the Subtropical Insects and Horticultural Research Unit (SIHRU) located at the U.S. Horticultural Research Laboratory in Ft. Pierce, Florida.





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MMRU conducts innovative research, training, and engagement to advance understanding of how parental-child diet, nutrition, and physical activity optimize development. MMRU is co-located with the Arkansas Children's Nutrition Center.

**Research Project:** The USDA established the first citrus experiment station in Eustis, Florida in 1892 where a plant improvement program to introduce new citrus hybrids was initiated. Eventually this experiment station would become the U.S. Horticultural Research Laboratory (USHRL) that was built in 1999 in Ft Pierce, Florida and would expand its work to include four research units: Subtropical Insects and Horticulture (SIHRU), Subtropical Plant Pathology, COSPRU and Aquaculture.

The goal of the collaborative project between MMRU, COSPRU, and SIHRU is to determine the health promoting potential of the extracts of 4 citrus hybrid clones in vitro and in vivo on pre and postnatal health outcomes. The participant will test different doses of each extract on macrophage (RAW cells) and human trophoblast (Bewo) cell lines at the MMRU. Cells will be treated with and without extracts  $\pm$  lipopolysaccharide (LPS) and/or fatty acids (i.e., palmitic acid) to simulate inflammation or high fat diet environment. Inflammatory cytokine panels will be measured to evaluate the anti-inflammatory effect of the citrus flavonoids. Then, the participant will initiate in vivo studies at the MMRU on pregnant and/or adolescent mice using the most promising flavonoid extracts (based on the results of the in vitro studies) and will be fed either a control or western diet  $\pm$  flavonoid extract enriched diet to measure gut microbiota, inflammation, metabolism (glucose, insulin, short chain fatty acid (SCFA)) and flavonoid metabolites. Data analysis and visualization and manuscript preparation will take place at the COSPRU.

**Learning Objectives:** The participant will gain hands-on experience with in vitro cell lines and in vivo mouse studies. The participant will also gain hands-on experience in microbiota data analysis, experimental design, and statistical analysis. This opportunity will provide professional development in the form of scientific equipment and microbiome and rodent study training, expansion of network with ARS scientists and collaborators, mentorship by ARS scientific staff, and co-authored publication(s) and presentations at scientific conferences.

**Mentor(s):** The mentor for this opportunity is Christina Dorado ([christina.dorado@usda.gov](mailto:christina.dorado@usda.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**Anticipated Appointment Start Date: June 1, 2026.** Start date is flexible and will depend on a variety of factors.

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

**Level of Participation:** The appointment is full time.

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**Participant Stipend:** The participant will receive a monthly stipend commensurate with educational level and experience. **The anticipated stipend range will be \$6,161 - \$6,780 monthly.**

**Citizenship Requirements:** This opportunity is available to U.S. citizens only.

**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 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 [ORISE.ARS.Southeast@orau.org](mailto:ORISE.ARS.Southeast@orau.org) and include the reference code for this opportunity.


**Qualifications** The qualified candidate should have received within the past five years or be currently pursuing a doctoral degree in one of the relevant fields.

**Preferred skills:**

- The candidate will have experience handling cell culture and animal studies.

**Stipend** \$6,161.00 – \$6,780.00 Monthly

**Point of Contact** [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Doctoral Degree.
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([6](#) )
  - **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).