

Opportunity Title: USDA-ARS Epcot Biotechnology Fellowship

Opportunity Reference Code: USDA-ARS-NE-2024-0200

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NE-2024-0200

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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 recommendations

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

Application Deadline 8/2/2024 3:00:00 PM Eastern Time Zone

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

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

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.

The USDA ARS operates a laboratory at Disney's Epcot Center and has an existing cooperative agreement with NASA to apply biotechnology tools for the development of highly nutritional fruit crops that are amenable to space flight applications and space exploration. This involves adapting fruit crops such as tomato and plums to small, controlled environmental growth chambers for efficient propagation, growth, and production using novel biotechnology strategies.

Research Project: Under the guidance of a mentor, the participant will research:


- Tissue culture propagation and transformation of fruit crops for controlled environments.
- Experimentation using custom designed NASA growth chambers to simulate space flight conditions.


Learning Objectives: Through this opportunity, the participant will learn:




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- Function and use of NASA ETCS growth chambers.
- Tissue culture and transformation of fruit crops.
- Genetic engineering fruit crops for specialized growing environments.

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

Anticipated Appointment Start Date: September 2, 2024. 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 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 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.Northeast@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a bachelor's degree in the one of the relevant fields (biological sciences with an emphasis on plant-related coursework). Degree must have been received within the past five years, or be currently pursuing.

Preferred skills:

- Experience in plant tissue culture and propagation.
- Skill in maintaining sterile conditions and following detailed scientific procedures is highly desired.
- Knowledge of plant tissue culture and experience in making tissue culture media is preferred.

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**Eligibility
Requirements**

- **Degree:** Bachelor's Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Life Health and Medical Sciences** ([4](#) 👁)