

**Opportunity Title:** Research Opportunity – Effects of Climate Change on Crop Plants

**Opportunity Reference Code:** ARS-CSGCL-2015-0107

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

**Reference Code** ARS-CSGCL-2015-0107

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

- An application
- Transcript(s) – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV

If you have questions, send an email to [USDA-ARS@oru.org](mailto:USDA-ARS@oru.org). Please include the reference code for this opportunity in your email.

**Description** A Research Opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Crop Systems and Global Change Laboratory (CSGCL) in Beltsville, Maryland.

The individual selected for this opportunity will function as a member of a team that is investigating the effects of climate change on crop plants. The assigned area of research is to identify differences in responses of wheat and soybean genotypes to atmospheric carbon dioxide enrichment and to above optimal growth temperatures. Phenotypic differences among genotypes will be investigated at physiological, molecular and biochemical levels to identify biomarkers for abiotic stress resistance that can be used in advanced breeding programs. The selected individual will be responsible for planning and conducting research, data collection and analysis and preparing publications in scientific journals.

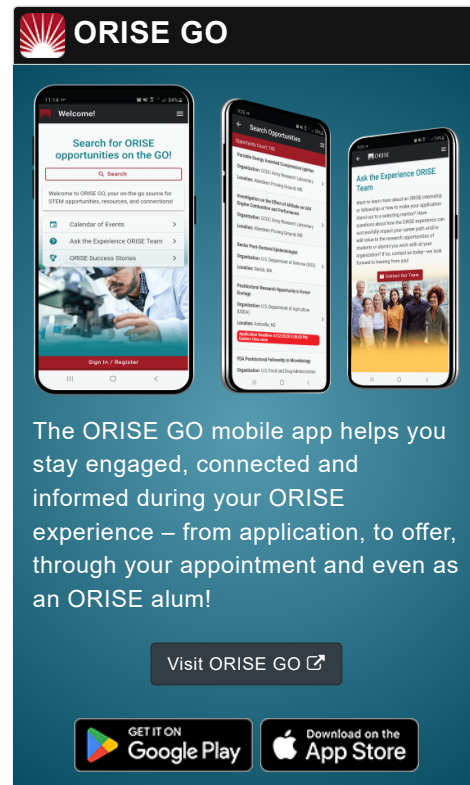
The appointment is full-time for one year. The selected applicant will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by ARS officials, and are based on the applicant's academic and professional background. A health insurance allowance will be provided. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE.

**The participant does not become an employee of ARS or ORISE.**

While participants will not enter into an employment relationship with ARS, this position 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, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.



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

**Qualifications** To be eligible, applicants must have received a d Doctor of Philosophy degree in the plant sciences and to have taken a minimum of 30 credit hours in advanced courses in either plant physiology or plant molecular biology.

The selected individual should be familiar with the following skills: 1) growing plants in controlled environment chambers, in greenhouses or in the field, 2) maintaining controlled environment chambers, 3) measuring photosynthesis, respiration and chlorophyll fluorescence, 4) measuring leaf water potential or relative water content, 5) general laboratory procedures, such as preparing buffers and using pH meters, 6) performing mRNA extraction and quantitative PCR measurements, 7) quantifying plant constituents by liquid chromatography or GCMS, 8) statistical techniques such as ANOVA, principal coordinate analysis and hierarchical clustering, and 9) proof of recent publications in the plant sciences.

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (6 )