Opportunity Title: USDA-ARS Postdoctoral Opportunity in Biobased Product Development
Opportunity Reference Code: USDA-ARS-MW-2023-0019

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MW-2023-0019

How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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.

Application Deadline 9/1/2023 3:00:00 PM Eastern Time Zone

Description

***Applications will be reviewed on a rolling-basis and this posting will remain open until filled.**

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), National Center for Agricultural Utilization Research (NCAUR) located in Peoria, Illinois to develop novel, value-added, bio-based, non-food products from agricultural materials, including sugars.

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: The National Center for Agricultural Utilization Research performs research to improve agricultural production, food safety and public health, economic development, and environmental quality. This research will enhance the economic viability and competitiveness of U.S. agriculture commodities by expanding domestic and global market opportunities associated with the growing bioeconomy through the development of environmentally friendly, non-food biobased technologies and products. The selected participant will create new chemical and biochemical processes for economically producing value-added

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products from biomass, particularly from sugars.

Learning Objectives: The participant will learn new chemical and biochemical processes, product isolation, product characterization with analytical chemical/biochemical techniques, and determining product efficacy using antifungal and antimicrobial assays. The participant will be afforded the opportunity to present their research at professional conferences, peer-reviewed publication, and through interactions with academic and industrial collaborators.

Mentor(s): The mentor for this opportunity is David Compton (david.compton@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: 2023. 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 an additional year 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, up to $69,107 (GS11-1). A health insurance allowance and an allowance for travel to scientific meeting to present research results will also be provided. Some relocation expenses may be reimbursed.

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.Midwest@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, or be currently pursuing the degree with completion by start of appointment.

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Preferred skills:

- Experience in chemical, biochemical, microbiological, and/or molecular biological experimentation, purification/isolation, and characterization of compounds for the development of bio-based products
- Experience with the synthesis and characterization of modified carbohydrates and/or saccharides

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (9 👁)
  - **Communications and Graphics Design** (1 👁)
  - **Engineering** (2 👁)
  - **Life Health and Medical Sciences** (10 👁)