

**Opportunity Title:** USDA-ARS Postdoctoral Research Associate Fellowship

**Opportunity Reference Code:** USDA-ARS-2022-0341

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

**Reference Code** USDA-ARS-2022-0341

**How to Apply** *Connect with ORISE...on the GO!* Download the new ORISE GO mobile app in the [Apple App Store](#) 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** 11/16/2022 3:00:00 PM Eastern Time Zone

**Description** \*Applications may be 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), Grand Forks Human Nutrition Center located in Grand Forks, North Dakota.

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 project will allow the participant to conduct applied research addressing the roles of healthy diets/foods and physical activity on human health and weight control. The research participant will primarily examine the impact of pulses and their bio-active compounds (e.g., resistant starch and protein) on energy utilization and substrate oxidation using indirect calorimetry and biochemical analyses. Appointment activities include: 1) Conception of independent research and multidisciplinary team-based research (basic, clinical and/or translational) and analysis of experimental data; and 2) Submission of manuscripts for publication of experimental results in peer-reviewed journals and presents information at scientific meetings and at other research institutions.

The participant will use a variety of models and methods to provide a greater understanding of how the nutritional quality (e.g., resistant starch



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and protein) of food products for which the Northern Great Plains is the primary producer, such as pulses, may lead to better weight control.

**Learning Objectives:** The participant will learn how to: 1) Determine how the consumption of pulses effects energy metabolism; 2) Determine the impact of pulse consumption on post-postprandial substrate oxidation; and 3) Determine the metabolomic effect of consuming pulses.

The research participant will have a unique opportunity to investigate how foods produced in the Northern Great Plains promote human health, learn state-of-the-art techniques such as whole room calorimetry, and communicate with regional producers and other stakeholders. The participant will gain experience in writing and publishing in peer-reviewed journals. This research directly enhances our research within the Healthy Soils, Healthy Food, Healthy People Initiative.

**Mentor(s):** The mentor for this opportunity is Shanon Casperson ([shanon.casperson@usda.gov](mailto:shanon.casperson@usda.gov)). If you have questions about the nature of the research please contact the mentor(s).

**Anticipated Appointment Start Date:** 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 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 [USDA-ARS@ornl.gov](mailto:USDA-ARS@ornl.gov) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received a doctoral degree in one of the relevant fields (Nutrition, Physiology, Biochemistry, Molecular Biology, Biology, Food Chemistry, Food Science).

Preferred skills:

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- A solid, fundamental knowledge of the principles, theories and practices of molecular and cellular biology, physiology, biochemistry, or food science/technology in the context of human nutrition or food choice and acceptance
- A working knowledge of metabolism and human physiology
- The ability to plan and implement experiments, which includes the ethical and legal considerations pertaining to human experimentation
- Knowledge of statistics and the ability to use a computer and appropriate statistical software, as well as the ability to interpret, evaluate, and present research in oral and written reports and publications

- Eligibility**
- **Degree:** Doctoral Degree.
- Requirements**
- **Discipline(s):**
    - **Life Health and Medical Sciences** ([L](#)👁)