Opportunity Title: USDA-ARS Postdoctoral Fellowship in Dairy and Animal Sciences

Opportunity Reference Code: USDA-ARS-2022-0083

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-ARS-2022-0083
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. All transcripts must be in English or include an official English translation. 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	3/9/2022 3:00:00 PM Eastern Time Zone
Description	***Applications will be 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), U.S. Dairy Forage Research Center (USDFRC) located in Madison, Wisconsin.

Research Project: The project is to conduct research to further understand nutritional and microbial mechanisms associated with increased feed efficiency in dairy cows during lactation. Specifically, research will focus on the impact of protein and carbohydrate nutrition and gut or tissue microbiome and their interactions on nutrient use efficiency in dairy cows and the impact of diet on metatranscriptome changes in dairy cows. The project aims at understanding the interaction of host microbiome and host nutrition. The participant will collect and analyze transcriptomic data, interpret the results, and write the manuscripts.

Learning Objectives: The participant will learn the latest approaches to metatransciptomic analyses and interactions between ruminal microbiome and host nutrition affecting dairy cattle nutritional efficiency. The participant will collaborate with leaders in metatranscriptomics and dairy cattle nutrition and will learn how to collaborate with scientists across diverse disciplines to address research objectives.

Mentor(s): The mentors for this opportunity are Geoffrey Zanton (Geoffrey.zanton@usda.gov) and Wenli Li (wenli.li@usda.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: February 2022. Start date is flexible and will depend on a variety of factors.

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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. **The annual stipend will be $64,649 and a supplement of $5,679 will also be provided to offset the cost of health insurance. A travel allowance of $1,000 will be available to reimburse travel related expenses to scientific and professional development activities.**

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@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.

Preferred skills:

- Experience with experimental and analytical methods in molecular genetics
- Skills in bioinformatics, gene expression analysis, metabolic profiling, or amino acid analysis
- Molecular work experience; e.g., DNA/RNA extraction and quality control, PCR, RT-qPCR, etc.
- Proper processing of animal tissues for RNA work
- Knowledge of and skill in valid experimental design, large-scale analysis of omics data related to dairy animal performance and production using complex statistical and bioinformatics methods
- Practical coding experience using Python or R
- Work experience in bioinformatics analysis using sequencing data, e.g., genomics and transcriptomics sequencing data

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Life Health and Medical Sciences** (16 👁)
  - **Mathematics and Statistics** (1 👁)