

Opportunity Title: USDA-ARS Human Nutrition Postdoctoral Fellow

Opportunity Reference Code: USDA-ARS-2020-0139

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2020-0139

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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 8/18/2020 3:00:00 PM Eastern Time Zone

Description *Applications may be reviewed on a rolling-basis and this posting could close before the deadline.

ARS Office/Lab and Location: A postdoctoral research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Plains Area- Grand Forks Human Nutrition Center located in Grand Forks, North Dakota.

Our unit's mission is to serve the public through conducting basic and applied research emphasizing the roles of foods and physical activity in maintaining healthy body weight and preventing co-morbidities of obesity.

Research Project: The research project the selected participant will be involved in includes animal and human model of parental hyperlipidemia that can cause placental and fetal growth and development dysfunctions. Experimental approaches that the participant will be involved in include studies of epigenetic alterations responsible for mediating maternal hyperlipidemic environment and dietary intervention to reduced adverse maternal influence.

Appointment activities will include: 1). Conception of independent research and multidisciplinary team-based research (basic, clinical and/or translational) and analysis of experimental data, 2). Prepare written products based on research to be published in professional articles, publications, and technical abstracts., 3). Submit manuscripts for publication of experimental results in peer-reviewed journals and presents information at scientific meetings and at other research institutions, and 4). Conduct research using animal models.

Learning Objectives: The participant will gain experience and knowledge in nutritional epigenetics, pathway analysis, and next generation sequencing techniques. Learning objectives include:

- Determine how maternal and paternal hyperlipidemia influence placental fetal growth and development
- Determine epigenetic alterations underlying maternal and paternal environmental conditions in



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placental and other metabolic tissues of parents and offspring

- Determine effects of dietary intervention to prevent or reverse hyperlipidemia influence placental fetal growth and development

This research opportunity will provide unique and valuable training in large-scale NGS technology and cutting edge maternal nutrition-associated epigenetic studies that can potentially develop into human trials. The participant will be involved in all aspects of study and expected to present results at national conferences and publish in peer-reviewed journals.

Mentor(s): The mentor for this opportunity is Kate Larson (kate.larson@usda.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: September 1, 2020. 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 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 in genetic and epigenetic research and animal dietary and physical activity studies
- Ability to conceive and conduct research using animal and human models
- Ability to apply the principles and techniques of biochemistry, metabolism, cell biology, and molecular biology to elucidate the roles of foods, food factors, and physical activity on epigenetic changes and other trans-generational factors affecting the propensity to develop adiposity

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**

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- **Life Health and Medical Sciences** ([6](#) )