**Opportunity Title:** Molecular and Cellular Biologist Research Opportunity
**Opportunity Reference Code:** ARS-RDIRU-2016-886-0029

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

**Reference Code** ARS-RDIRU-2016-886-0029

**How to Apply** A complete application package 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. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two references – While two references are requested, applications will be considered without reference information. It is preferred that a complete application package contains a minimum of one reference.

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

**Description** A Molecular and Cellular Biologist Research Opportunity is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) Ruminant Disease and Immunology Research Unit (RDIRU) in Ames, IA.

The Ruminant Disease and Immunology research groups focus on a number of important diseases in cattle. The selected applicant will partner with a team of microbiologists, immunologists and animal scientists investigating host-microbe interactions for the discovery of antibiotic alternatives that will improve animal health and food safety. The research goal of this position is to reduce the use of antibiotics through better understanding of how the host's immune system fails to completely eliminate bacterial pathogens that cause disease in cattle.

The research plan is focused on two objectives:

- To manipulate the host in a way that optimizes the immune response to pathogens.
- To gain a better understanding of the various mechanisms that allow bacteria to evade the host's immune system.

The selected applicant will participate in infection studies in cattle to determine the effect of immune modulatory therapies (e.g. cytokines) by measuring the changes in immune cell function. In addition, the selected applicant would participate in bacteriological studies to determine virulence determinants in disease. The position may also include collecting, processing, and evaluating samples for RNA sequencing and proteomics.

The appointment is full-time for one year and may be renewed annually for an additional 3 years based upon recommendation of the ARS and

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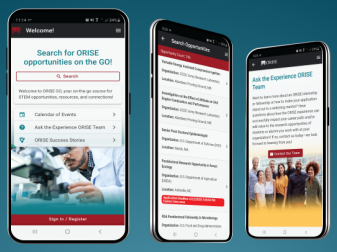

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availability of funding. The annual stipend rate for this position is $59,246 for the first year. A stipend supplement in the amount of up to $14,723 for a family plan is available to offset the cost of an individual or family health insurance plan. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. Relocation expenses in the amount of $500 will be reimbursed, with prior approval. An annual allowance of $3,000 is available to reimburse travel-related expenses to scientific and professional development activities.

The participant will not enter into an employee/employer relationship with ORISE, ORAU, USDA, ARS, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

While participants will not enter into an employment relationship with ARS, this position requires a pre-appointment check and a full background investigation.

This opportunity is available to U.S. citizens only.

For more information about the ARS Research Participation Program, please visit the **Program Website**.

**Qualifications**

To be eligible, applicants must have received a doctoral degree in Immunology, Microbiology, Molecular, and Cellular Biology, or a related field within five years of the desired starting date.

The ideal candidate will be skilled in basic immunological, microbiological, and genomics techniques. Competency in basic microbiological techniques is necessary. Fluent technical writing in English for peer-reviewed publications is required.

Preferred skills include:

- A strong background in molecular genetic techniques including RNA and DNA isolation, PCR design and applications, and DNA and RNA sequencing techniques
- Knowledge of conventional immunological techniques, such as tissue culture, flow cytometry, ELISA, and western blotting
- Cellular biology skills, such as cell isolation and cellular function assay

Outstanding candidates will be enthusiastic and self-motivated with good communication skills and a strong work ethic.

Experience with large animals is a plus, but not required.

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Life Health and Medical Sciences** (12 👁)