

Opportunity Title: Postdoctoral Research Opportunity in Molecular Microbiology

Opportunity Reference Code: ARS-VPRU-2016-0199

Organization U.S. Department of Agriculture (USDA)

Reference Code ARS-VPRU-2016-0199

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, including academic history, employment history, relevant experiences, and publication list
- 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 Postdoctoral Research Opportunity in Molecular Microbiology is available with the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) National Animal Disease Center (NADC) in Ames, IA. The selected applicant will conduct research on pathogens and conditions that contribute to the Porcine Respiratory Disease Complex (PRDC). Projects include identifying virulence factors and evaluating the molecular mechanisms used by swine bacterial pathogens, such as *Haemophilus parasuis* and *Streptococcus suis*, to colonize and cause disease.

The selected applicant's primary responsibility will be conducting basic and applied research on swine bacterial pathogens. Activities will include genetic modification of bacterial strains, performing biofilm assays, measuring swine immune responses, and evaluating pathogenesis using molecular tools both in cell culture and in swine. Secondary responsibilities will include working with the swine bacterial pathogens team on ongoing projects. Selected applicant will present research findings in laboratory meetings and seminars and will write scientific manuscripts and publish them in peer-reviewed scientific journals.

The appointment is full-time for 12 months and may be renewed based upon recommendation of the ARS and availability of funding. The annual stipend rate for this position will range from \$59,246 - \$71,012 per year.

Stipend rates are determined by ARS officials, and are based on the applicant's academic and professional background. Full or partial reimbursement is available to offset the cost of a health insurance plan. The participant must show proof of health and medical insurance. Health insurance can be obtained through ORISE. Full or partial reimbursement



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for travel expenses to conferences, scientific meetings, or training may also be provided. 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, 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.


For more information about the ARS Research Participation Program, please visit the [Program Website](#).

Qualifications To be eligible, applicants must have received a Ph.D. or equivalent degree in microbiology, immunology, or molecular biology, within five years of the desired starting date. Specialty degrees in related fields are desirable. Relevant fields include microbiology, molecular biology, bioinformatics, and infectious diseases.

Preferred skills include:

- Strong molecular biology skills: PCR, cloning, sequencing, western blot, DNA / RNA isolation
- Experience with animal models for infectious disease study
- Experience with cell culture assays: mammalian cell culture maintenance, culture of pathogens
- Knowledge of standard immunological techniques
- Excellent verbal and written communication skills

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - Life Health and Medical Sciences ([10](#) )