Opportunity Title: Postgraduate or Postdoctoral Opportunity in Computational Biology
Opportunity Reference Code: ARS-ABBL-2018-981-0059

Organization	U.S. Department of Agriculture (USDA)
Reference Code	ARS-ABBL-2018-981-0059
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 research opportunity is available with the U.S. Department of Agriculture (USDA), Agriculture Research Service (ARS), Northeast Area (NEA) and Animal Biosciences and Biotechnology Laboratory (ABBL), in Beltsville, MD. This is joint position between Animal Biosciences and Biotechnology Laboratory and Northeast Area Bioinformatics.

The incumbent will be participating in two projects:

1) In ABBL: The objective of the project is to determine the effect of the microbiome on growth performance in chickens. Moreover, we are trying to determine how we can manipulate the microbiota to improve body weight, feed intake and feed conversion ratio in chickens. This project provides a great opportunity for the participant to expand their knowledge base and develop a variety of tools pertinent to his or hers future professional career. The participant will be involved in: a) metagenomic data analysis using Qiime2, Mothur or CLC Genomic workbench; b) pipeline development to analyze avian microbiome and c) microbiome databases comparison.

2) In NEA Bioinformatics group: 1) Possible opportunity to assist with building a graphical interface for pathway networks connecting annotated genes in a completed genome using existing software such as BioCyc 2) Possible opportunity to assist with building an interface for a USDA/ARS collection with a MySQL back-end 3) Perform activities in a computerized environment such as backing up files, formating files, and preparing files for analysis, usually in a Linux environment. 4) General Bioinformatics activities such as but not limited to sequence alignment, assembly, phylogeny, annotation etc. 5) Web pages and graphics 6) Assisting the mentor to prepare user manuals and bioinformatics pipelines.

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The appointment is full-time for 12 months and may be renewed based upon availability of funding. The selected applicant will receive a stipend in an amount up to $68,036 as support for their living and other expenses during this appointment. The stipend amount will depend on the degree and experience. The participant must show proof of health insurance. Health insurance can be obtained through ORISE. The participant will also be awarded a health insurance stipend supplement up to $5,679 per year, and a science and research travel allowance up to $1,000 per year.

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.

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

Qualifications To be eligible, candidates should have Bachelors, Masters or Ph.D degree in computer science/compuational biology or bioinformatics or Bachelors, Masters or Ph.D in biological sciences with equivalent experience in computational biology.

Preferred Skills:

- Bioinformatics skills,
- Experience with Qiime2 or Mothur,
- Linux operating system
- Knowledge of relational databases, SQL
- Any programming language such as C,C++, Fortran, Python, Perl or Java.
- R - statistics suite
- Biology/Biochemistry/Molecular Biology

Eligibility Requirements
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (3 👁)
  - **Environmental and Marine Sciences** (1 👁)
  - **Life Health and Medical Sciences** (7 👁)