

**Opportunity Title:** Genomics Analysis Postdoctoral Fellowship

**Opportunity Reference Code:** CDC-ID-2018-0050



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**Organization** Centers for Disease Control and Prevention (CDC)

**Reference Code** CDC-ID-2018-0050

**How to Apply** A complete application consists of:

- An application
- Transcripts – [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 references

All documents must be in English or include an official English translation.

If you have questions, send an email to [CDCCrpp@orau.org](mailto:CDCCrpp@orau.org). Please include the reference code for this opportunity in your email.

**Description** A post-doctoral fellowship opportunity is available in the Influenza Division at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The Influenza Division's Genomic Analysis Activity within the Virology, Surveillance and Diagnosis Branch conducts evidence-based analytical research studies on the molecular evolution of seasonal influenza viruses as it relates to public health areas of vaccine composition, antigenicity, antiviral susceptibility, attenuation, host-specificity, pathogenicity and diagnostics using a multidisciplinary approach of genetics, bioinformatics, virology, molecular biology and epidemiology.

The candidate will assist in research and development efforts to integrate mathematical and computational approaches using genomic sequence, antigenic and metadata to understand and predict the evolutionary and epidemiological patterns of seasonal influenza viruses.

Activities may include:

- Evaluating existing methods for genomic data analysis
- Developing new applications for genomic data analysis
- Developing, validating, optimizing and implementing computational analysis pipelines for genomic data analysis
- Performing bioinformatics analyses of large scale genomic data
- Integrating statistical analysis to project design and data interpretations

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- Preparing summaries, presentations and manuscripts of complex data and results

The fellow will partner with branch personnel and other researchers in the division, and will have the opportunity to enhance professional growth and development by reviewing current literature and by participating in educational programs, workshops, conferences, and in-service meetings.

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and CDC. The initial appointment is for one year, but may be renewed upon recommendation of CDC contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at CDC in the Atlanta, Georgia, area. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits.

**Qualifications** PhD in biological sciences with emphasis on bioinformatics and computational biology required



Two years post graduate experience preferred but not required

Proficiency in the use of statistical inference methods for genomic data required

Useful skills include:

- Proficiency in at least one high level scripting and programming language (e.g. PERL/Python/JAVA, R, C++)
- Experience with Linux environment, running a cluster using SGE and BASH shell scripting
- Experience with databases/datastructures such as SQL, MySQL, HADOOP
- Experience with bioinformatics, phylogenetics and evolutionary analysis software
- Experience with statistical or mathematical analysis packages
- Experience with biological datasets, preferably large scale genotyping and/or sequencing data

**Eligibility Requirements**

- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 )
  - **Life Health and Medical Sciences** (6 )