

**Postdoctoral Research Position
Department of Homeland Security
Plum Island Animal Disease Center
Orient Point, New York**

The Department of Homeland Security at the Plum Island Animal Disease Center, Orient Point, NY is seeking a Computational biologist, Bioinformatics expert to support efforts within the Disease Threat and Assessment/Forensics Unit.

The desired candidate will have a Ph.D. in bioinformatics, microbiology, immunology, computational science or related field with a strong emphasis of host-pathogen interactions and the genetic basis of microbial virulence.

The incumbent of this position is responsible for carrying out basic and applied research in computational biology related to the study of genetic factors involved with microbial pathogenesis and host response.

The research will require sophisticated mathematical, statistical and computational approaches, the application of existing algorithms as well as the design of computational approaches to detect and analyze DNA mutations and patterns inherent in biological data.

Required Experience for this position:

Knowledge of genomic databases and DNA sequence analysis, genomic databases and tools.

Knowledge of new technologies for large-scale analysis of gene expression and function, to understand complex biological properties of microbial pathogens.

Knowledge of different types of databases and heterogeneous hardware and software platforms.

Knowledge of sequencing and computational techniques in genomics and with related programming and operating systems.

Knowledge of high performance computing.

Knowledge of statistics, computer science, mathematics, engineering, and biology used to develop relevant bioinformatics tools and technologies, and to aid in analysis and data collection using new tools for new data sources (e.g., proteomic data, metabolite concentrations, metabolite fluxes).

For more information about the program and application materials, please visit www.orau.gov/piadc or contact piadc@orau.gov.