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National Center for biotechnology

information viral

genomes project

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National Center for Biotechnology Information (NCBI) Viral Genomes Project (VGP) is a part of the Entrez-Genome collection. The VGP provides web-based informational and analytical tools and resources for viral genomic research. Currently it contains more than 2600 complete genomes of viruses and viroids.

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V I R O I O G Y

To reduce virus sequences redundancy, only complete genomes are being collected for the project. For each virus species curators create a reference sequence (RefSeq), which serves like molecular standard for the species and ideally contains a comprehensive mini-review of gene function with references on experimental data. Genomes can be sorted and filtered alphabetically, taxonomically or based on the type of virus host. Additionally the VPG includes other full genome sequences for the species (neighbors). The direct access to precomputed analyses and tools provides researches with the ability to analyze and compare viral genomes and proteomes in a fast and convenient manner.

Viral genome data extensively integrated with other NCBI's resources, including taxonomy, nucleotide links to GenBank records, PubMed and Protein Cluster Database (ProtClustDB). The VGP also provides a numeral links to a variety of analytical and visualization tools (BLAST and virus classification tool PASC), related NCBI resources (Influenza Virus, Virus Variation and other) and other virology databases.

An important aspect of our ongoing work is to solicit feedback from the scientific community to improve and extent VGP and to make it more useful for the researchers.

The VGP web site is available at

http://www.ncbi/genomes/GenomesHome.cgi?taxid=10239.

Biography

Olga Blinkova has completed her Ph.D. from Moscow State University and conducted postdoctoral trainings at Oklahoma State University and University of California, San Francisco where her research was focused on metagenomic analysis of new viruses. She is currently a viral genome curator at NCBI.