Influenza Research Database (IRD)
New Features in IRD

News & Events

New Ebolavirus portal in ViPR!
Check out the new Ebolavirus portal that includes clinical outcomes data linked to the 2014 sequence records.

Recent IRD Publication
Aevermann, B.D. et al. (2014) A comprehensive collection of systems biology data characterizing the host response to viral infection. Scientific Data, 1: 140033; doi: 10.1038/sdata.2014.33

Update on Phenotype Markers (aka Functional Sequence Features)
In our September 2014 release, IRD added data about 113 molecular determinants of important viral phenotypic characteristics derived from the CDC H5N1 Genetic Changes Inventory. The Functional SFs are broken into the following categories:

- Determinant of virulence
- Tissue tropism
- Clinical symptoms of disease
- Replication efficiency
- Polymerase activity
- Activation pH
- Transmissibility
- Species adaptation
- Antiviral drug activity
- Temperature sensitivity
- Affect type I IFN pathway
- Inflammatory response

View Phenotypic Variant Types on Strain/Segment/Protein Details pages
Built upon the IRD Sequence Feature Variant Type (SFVT) component, every relevant protein sequence in IRD has now been annotated with the presence or absence of each of these Phenotypic Variant Types (PVTs). These annotations are made available in the Sequence Derived Phenotype Marker section of the Strain/Segment/Protein Details pages and in the SFVT component.

The HA sequence of the A/Jiangsu/4/2007 strain carries the 110N PVT substitution that has been shown to increase binding to alpha 2-6 receptor in the publication cited.

Explore Sequence Feature variations in SFVT
IRD has examined each of the phenotypic Sequence Features (SFs) and computed the extent of sequence variations for each of these regions based on the sequence records available in IRD. Influenza strains are then grouped based on the individual Variant Types (VTs) observed for a given sequence. To access these computational results, follow the steps below to go to the Sequence Feature Details page:

1. Mouse over the “Search Data” dropdown menu in the grey navigation bar and click “Sequence Feature Variant Type”;
2. On the Sequence Feature Variant Type landing page, search for a Functional Sequence Feature, e.g., SUBTYPE - H5, SEGMENT - HA, SEQUENCE FEATURE TYPE - Functional;
3. On the Sequence Feature search results page, choose a desired Sequence Feature and click “View”;
4. The Sequence Feature Details page will be loaded with information regarding how this Sequence Feature is defined and the Sequence Feature Variant Types observed for this region based on all strains contained within IRD. The Strain Count column provides links to a list of all strains containing the indicated SFVT.

The October 2014 release of IRD is now available, visit www.fludb.org

Questions? Problems? Suggestions? Click Here