VEuPathDB

Eukaryotic Pathogen, Vector & Host Informatics Resources

Research

Bioinformatics Resource Centers

The Bioinformatics Resource Centers (BRCs) for Infectious Diseases program was initiated in 2004 with the main objective of providing public access to computational platforms and analysis tools that enable collecting, archiving, updating, and integrating a variety of genomics and related research data relevant to infectious diseases, and pathogens and their interaction with hosts

https://www.niaid.nih.gov/research/bioinformatics-resource-centers

What's in it for you?

Enable researchers to ask their own questions

ORGANISMS

Pathogens and related species
Disease causing

https://veupathdb.org/veupathdb/app/search/organism/GenomeDataTypes/result

DATA

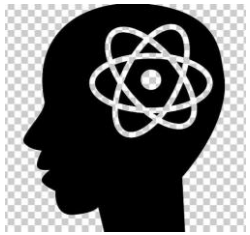
Genomes, Functional genomics, Metadata

Analyze with standard workflows

Results integrated into one DB for comparing within and across data sets

MINE & VISUALIZE

Web based graphical interface to mine, visualize and search the data



MINE and VISUALIZE

(Basic Functions for integrated data)

Record Pages

Compile all data for entity

Dynamic visualization

Genome Browsing, Network viewing

Search strategy

Genome scale questions that merge evidence

Galaxy Workspace

Primary analysis

VALUE ADDED

- Public data assembled into one place
- Pre-analyzed. We show our results. **No need for computational skills**
- Many data types from many organisms
- Same workflows so compare across data sets
- Orthology so compare across organisms
- Standard visualizations and data presentations

THE DATA

What is it and where does it come from

genome sequence and annotation,
    domain predictions
    orthology profiles across all organisms (OMCL)
transcriptomics,
proteomics,
epigenomics,
metabolomics,
population resequencing,
clinical data,
surveillance data,
host-pathogen interactions,

InterPro Classification of protein families

Functional Characterization of Proteins

- classify proteins into families
- predicting domains and important sites
- predictive models, (signatures)
- several different databases that are members of the InterPro consortium.

http://www.ebi.ac.uk/interpro/