DNA Sequence Databases

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I. Outline

A. DNA Sequence Databases - Types and Use.

B. Blast Search

C. Exercise using the Blast Search
II. What is a DNA sequence Database?

- Are internet based biological databases available with known DNA or protein sequences.
- Used for storage of genetic information.
- They allow one to compare a sequence to one present in the database.
- Examples:
  - Nucleotide database (GenBank)
  - Protein database (PIR and Swiss-Prot)
  - *Saccharomyces* Genome Database (SGD)
  - *Drosophila* (Flybase.org)
III. What is a BLAST Search?

- Basic Local Alignment Search Tool is a search engine for DNA sequence.

- Allows one to compare any input sequence and see the relationship with a sequence from the database.
How to Find the Drosophila ISWI gene in Humans, *Saccharomyces cerevisiae*, and *Schizosaccharomyces pombe*?

Go to The Fruit Fly Database to Find Gene of Interest

www.flybase.org

Thank you!!!