Module 1: Where do I start? (NCBI)

iii – Zebrafish Genome Resources and the NCBI Home Page

Aims

- Introduce NCBI web sites
- Suggest starting points for data mining at NCBI
- Provide examples of different types of queries
- Show ways to navigate around NCBI web resources

Introduction

NCBI provides query and retrieval of many diverse types of data stored in its many databases. Interconnected resources allow users to begin at any of the NCBI web resources and then navigate to other related resources.

To start you may find it useful to begin at one of these sites:

NCBI Home Page

As an introduction to NCBI’s suite of resources, the NCBI home page provides access to NCBI databases and resources through direct links and organizes resource areas, such as GenBank, Literature databases, Molecular databases, Genomic biology and Tools in the blue side bar.

As you scroll down the NCBI home page, take note of:

- Links in the top menu bar and under ‘Hot Spots’
- The Search bar: where you can click on “All Databases” to go to the Entrez Home page or select a database in the query bar at the top, and submit a query.
- Learn what is new at NCBI by clicking on the NCBI newsletter
- Find contact information and where to submit a question by following the ‘Contact Information’ link at the bottom of the blue side bar. (e.g. NCBI help desk: info@ncbi.nlm.nih.gov)
Choose a database and submit a query

Follow links to NCBI tools and resources

Click on NCBI news to find out what’s new

Click on Contact Information to submit a question
The Entrez Home Page provides a global query interface, where you can follow links to each Entrez database or submit a single text based query against all databases simultaneously and then view the number of records matching your query in each database. You may be surprised to see results in several databases.

Try a global query: search for records in each Entrez database with a single text query. You can further restrict your query to look for zebrafish only records by adding: AND “Danio rerio”[organism] to the query bar.

Query by a single word or phrase

Create a complex query with the Boolean operators AND, OR, NOT

Restrict your query by organism
Click on the icon or database name to view the records returned for each database.
The Genome guide pages provide a guide to web resources for zebrafish researchers. This page includes links to NCBI and community resources and announcements, such as the first release of the zebrafish Zv4 genome annotation at NCBI.

NCBI Resources

Welcome to the zebrafish Genome resources page. This homepage will bring together information on NCBI and community zebrafish-related resources including sequence, mapping, and clone information. We encourage your suggestions.

Anyone Growth Visualization
Du et al. (2001)
Photo courtesy of:
The Zebrafish CD Exchange Project's:
The Living Laboratory

This month in...
PubMed
GenBank

Upcoming Meetings:
4th European Fish Genetics and Development Meeting
Dresden, Germany
July 13-16, 2005

Zebrafish Genome Resources Workshop - Dresden 2005
Dresden, Germany
July 14th and 15th, 2005
View workshop slides and modules from Sanger, ZFIN, and NCBI

What’s New
June 2005
NCBI’s Zebrafish Map Viewer has been updated with NCBI’s annotation of the zebrafish 24x genome assembly.

August 2004
Genome Resources Workshop Slides and Tutorial
NCBI, ZFIN and the Sanger Institute present a hands-on workshop on genome

Zebrafish Projects database

Query the Entrez Genome Project database to search for zebrafish sequencing and mapping projects. Query by organism name or follow

Click on related Entrez links to navigate to related records.

Click on links for sequence data providers.