IPA 4.0 Quick Start Tutorial: Basic Search Features

This tutorial provides a brief overview over the basic Search functionality in IPA. It covers search strategies for both gene-centric and functional searches. For more complex searches, including combined searches over functions and genes, please refer to the Advanced Search Quick Start Tutorial. To access Search, click the link from the Getting Started screen.

Searching over a single gene

To search over a single gene, simply type the gene name into the search box. The following columns are returned:

- **Name:** Corresponds to the official symbol in EntrezGene for the returned gene.
- **Matched Term:** Highlights why this term was returned. Matches are based both on official gene names and synonyms.
- **Synonym:** Returns all synonyms for the gene. Entries are taken from EntrezGene as well as our internal curation efforts.
- **Description:** Provides the description from EntrezGene, if available.
- **Location:** Specifies the subcellular location, based on the literature. If the expressed gene can be found in more than one compartment, the compartment where it is believed to be active is shown.
- **Family:** Specifies protein family membership based on internal curation.
- **Drugs:** Lists any FDA-approved drugs that target the gene.

Note that searches can also be performed over the following gene/protein identifiers: Affymetrix, GenBank, UniGene, SwissProt (Accession #s only), GenPEPT, GI, Agilent, Codelink, Illumina and IPI numbers, as well as HUGO gene symbols. In addition, searches can even be conducted over any combination of these identifiers.
Searching over multiple genes
You can also search over multiple genes at a time. To do so, separate these genes with a comma when typing them into the Search box. Alternatively, you can directly copy/paste a number of genes into the search box. However, this is only possible if the Java console is shown.
To enable the Java console, please follow these steps:
  1) Go to start and open the Control Panel.
  2) Double-click to open the Java Plug-in.
  3) On the Basic tab, check the Show Console, and click Apply.

Searching over Functions and Diseases
To understand which genes participate in a given function or disease, select Functions and Diseases from the search drop-down, and enter the function, as shown below for ‘chemotaxis’.

To refine your search, you could then click to access the advanced search features, described in the Advanced Search Quick Start Tutorial.

Searching over Tissues and Cells
While tissues or cells cannot currently be searched directly, they can be entered into the Functions and Diseases search box. As a result, all the functions and diseases a given tissue (or cell) has been implicated in are returned, as is shown below for leukocytes.